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VOL. XXIV.

A QUARTET OF WOMBLESS WOMEN.

BY CHARLES E. FISHER, M. D.

Chicago.

Dr. H. C. Allen of this city asked me about the first of September last to see one of his patients, a woman thirty-one years of age, tall, well-proportioned, in splendid health, but who had never menstruated, with reference to ascertaining whether there existed any operable gynecological condition to account for her anomaly, in whom we were surprised to find a case of arrested development of the genitalia bearing peculiar interest, out of it growing a series of cases which are perhaps without parallel in gynecological literature.

Ocular examination of this subject revealed a hairless mons veneris and pudendum, an entire absence of labia majora, rudimentary labia minora, only a tiny ostium vaginæ, and breasts which are rotund and perfect, except that there are neither nipples nor indications of a place where nipples ought to be. A little to the outer side of the glands, and below the usual location of nipples, are a few rudimentary glands of Montgom-

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ery. But there is neither nipple, areola, nor anything like a normal aggregation of Montgomery's bodies, nor are they rightly located, such as there are.

Digital examination revealed an infantile vagina, perhaps an inch and a half deep, terminating in a blind vault, with no semblance of a cervix uteri. Examination per rectum showed an absence of anything like a uterus, bimanual investigation supporting such absence. Nor was it possible to define broad ligaments or ovaries.

This patient is a vigorous woman, gentle in disposition, possessed of the instincts of her sex, with feminine voice and absence of excessive hair on her face, there existing nothing superficial to in the slightest degree indicate that she is other than a normally developed and perfect specimen of womanhood. The clitoris is natural in size and location and responds quickly to touch. The patient confesses to a moderate sexual appetite, and while accepting the verdict sensibly rather bemoans her inability to meet advances from the opposite sex. She would like to get married "if right," but not if she is not like other women.

ONE OF FOUR ABNORMAL SISTERS.

This case, interesting in itself, is made especially so as the fact is developed that she is one of a family of five sisters, four of whom are physiological freaks. A sister two years older than she, i. e., thirty-three years of age, is reported by her to be like her in appearance of external genitalia, never to have menstruated, and to have no nipples. The sister who is here is unable, of course, to state what may be the condition within the pelvis, but is convinced it must be like herself, because all other indications are the same. She is an intelligent, truthful woman, with no reason for deception, hence we accept her report without hesitancy.

A third sister, twenty-seven years of age, is like the ones of thirty-three and thirty-one, but there is a fourth sister, twenty-three years of age, whom we have seen, who is a perfect woman. Then comes the fourth freak daughter in the family, a girl of eighteen and a half, whose case is deserving of special

description, and whom we now know to be wombless beyond the peradventure of doubt.

A RARE GYNECOLOGICAL SUBJECT.

This girl, Alma A., came under observation the first week in September, in wretched health. Her decline was associated with an impure vaccination in February. At that time her health was perfect, her weight 150 pounds. But she had never menstruated, though from time to time she had had a consciousness of pelvic fullness, weight, and sensitiveness, and had had for three years an irregularly recurring nosebleed, sometimes quite severe, this being followed by relief of pelvic weight, etc.

From excellent health in February she had declined into a condition quite deplorable. Her weight had decreased nearly forty pounds. She was having constantly recurring hectic fevers, with intense bodily heat, followed by debilitating sweats. Her temperature daily recorded 103 1-2°, her pulse varying from normal, or nearly so, in the morning to 140 in the afternoon, the elevation of temperature and increased pulse-rate lasting until well into the night. Coupled with these symptoms there were loss of appetite, great physical and mental debility, and a hopelessness amounting almost to despair. Her feet were swollen, her skin waxy, her eyes heavy. Respiration was pantingly rapid, but upon forced effort was good. The kidney and bowel functions were quite normal, except that the urine was heavily loaded with earthy phosphates, there was a trace of albumin, and the specific gravity was down to 1010. The elimination of urea was slightly deficient, but not enough to contraindicate surgical procedure.

Examination revealed a counterpart of the older sister's condition of vulvar genitalia. No hair covered the mons or pudendum. The labia majora were absent, the minora underdeveloped. The clitoris was rather larger than normal and the os pubis was more acutely angled than in women. This girl's voice was rather heavy, but in no other particular did she seem at all masculine. In morale she was a child. The breasts were large and well-rounded, the nipples of normal

size. The ostium vaginæ was small, the sheath not more than an inch and a half deep, nor larger in caliber than a man's little finger. At its vault the bladder was plainly made out. There was no cervix, the vagina being only a diminutive, blind pouch.

Through the rectum could be felt a structure resembling a cervix uteri in shape and size, its proximal pole being directed toward the rectum, terminating at a point immediately beyond the vault of the vagina and behind the bladder. Bimanually there could be felt this cervix-like structure and a rounded mass above, fundus-like, as if at the sixth month of pregnancy, downward pressure upon it driving the cervix-like pole lower against the rectal finger. The abdominal outline of the pelvic growth was distinct and symmetrical, except that at the right cornual region it was somewhat nodulated and softened. Throughout there was a recognizable degree of resiliency that confused the diagnosis.

Opinions differed somewhat among several who examined the patient, the majority leaning to the idea that the girl possessed at least a rudimentary uterus which had been trying to menstruate, as shown by monthly pelvic symptoms and the vicarious epistaxis; other opinions leaned toward suppurating fibroid, based upon and in a non-developed uterus; still others toward sarcoma as a sequence to impure vaccination. The patient was quite sure the growth was a distended uterus, with menstrual débris as a cause of its firmness of resistance. Operation was proposed and consented to, the girl begging for a trial looking to the bringing down of a distended uterus, if this should prove to be the condition, and it was found to be possible, giving her consent, also, to a hysterectomy if the pathology should demand it.

The patient entered Hering College Hospital on September 17, and was operated the following morning, Drs. Allen, Morris, and Mitchell, and several students being present. Under chloroform anæsthesia I at first invaded the infantile vagina, incised its floor transversely just within the ostium, dissecting under and lifting its floor throughout its length, in this way avoiding the bladder, which crowded down beyond the vaginal vault. With the index finger a volsellum was guided

to the cervix-like structure, which was firmly grasped and dragged upon, abdominal pressure upon the tumor aiding in bringing it far enough into the artificial vagina to determine its nature. It was very like a cervix, but was slightly nodulated and possessed no os. Where this finger-like projection joined the main mass there was, however, an attempt at a cervical canal, not more than a half inch deep and with an os nearly as wide. It was at first thought that this was the balance of the undeveloped vagina, but there was no cervix at its vault and nothing to indicate that it was other than a failure at a uterine mouth.

ABDOMINAL HYSTERECTOMY REQUIRED.

Seeing that it was futile to proceed in this direction I closed this wound, after thoroughly cleansing it, and proceeded to open the abdomen over the pelvic growth. It was with difficulty that I could bring the mass into view, but after considerable effort, during which time the patient showed a good deal of shock, it was finally drawn into the abdominal wound and attacked at its lateral borders. The broad ligaments were found to be almost normal in size and thickness, the ovaries being rudimentary in structure, little larger than peas. The mass occupied the abdominal incision so completely and offered so much resistance to its exposure and removal that I stood not upon the order of separating it from the ligaments, further than to control bleeding by a line of sheep-gut sutures along each border of the expansion, and left the ovaries and fimbriæ within. Separation at its distal pole was less technical than if the mass had possessed a cervix which extended into a vaginal sheath.

Upon opening the abdomen it was seen that we had a degenerating fibroid uterus to deal with. The organ was rudimentary, yet it possessed a general uterine outline, with fibroid bosses varying in size from a hickory nut to a good-sized orange. Several of these were so softened that they ruptured in their handling, it requiring a good deal of care to avoid polluting the peritoneum, while within the cavity, small and irregular in shape, was considerable débris that looked as if it

might have been the solid matter of repeated menstrual fluxes. The resiliency of the mass, from its softened and semi-liquid state, and its symmetry, seems quite to justify the previous doubt of its nature. Parts of the mass appeared sarcomatous, macroscopically.

The various steps of the operation were pursued as dextrously as possible because of the critical condition of the patient, yet it was completed without soiling of the peritoneum and without undue hemorrhage or oozing. Careful attention was paid to the toilet and the wound was closed with three layers of sheep-gut, supported by silkworm-gut sutures which embraced the fasciæ, muscular structures, and skin. The wound healed by primary union, without stitch abscess or other complication.

The patient bore the anæsthetic better than was anticipated, extra care being taken in its administration, it being at no time pushed to complete surgical degree. Indeed, it was with difficulty that some of the steps of the operation could be proceeded with systematically and satisfactorily, because of the mildness of the narcosis. But it proved for the best that little anæsthetic was administered, the patient suffering no untoward after-effects and practically no chloroform shock.

To the agreeable surprise of everyone connected with the case the patient rallied well, and made an excellent recovery. Her convalescence was somewhat interfered with by the necessity of draining the pelvis through the perineal wound because of an unusual accumulation of serum and peritoneal fluid. By anticipating suppuration and draining per artificial vagina full a quart of dark blood-serum was drawn off and washed out and this danger was avoided. For the purpose of securing thoroughness in this procedure I introduced to the depth of eight inches a perforated silver drainage cannula, twice daily deluging the lower pelvis with sterile water, until, after four days, the irrigation returned without discoloration. This wound then closed without incident, and the patient was up and about her room at the end of the second week, leaving the hospital on the twenty-first day. At no time did the temperature rise above 100° , whereas prior to operation it had been running for weeks as high as 103° and $103\ 1-2^{\circ}$. From the

second day the patient was hungry, her sleep was like that of an infant, and at the end of the first week a perceptible gain in flesh and strength was apparent.

The constitutional remedy was silica, which served an excellent purpose. The patient has returned to her home in the central western part of the State with a gain of sixteen pounds in weight, a ravenous appetite, and a happiness that is in itself compensating for any anxiety spent over her case. She and her family verily believe that she is as one which is risen from the dead.

I have not yet seen the other sisters who are wombless, but that such they are is not doubted. The description of their cases is so complete, and so like the ones examined, that it is not for a moment questioned that this family possesses among its members four women whose genitalia are either entirely absent or in an undeveloped state. One of the two who have not yet been examined is said to be in good health, the other one somewhat delicate and soon to report for treatment.

It is worthy of note that there have been thirteen children in this family, eight boys and five girls. Of the boys three died in infancy, and one, married and possessed of a family, was killed in a railroad accident. The four remaining sons are young, the eldest fifteen. Nothing is known by the sisters who are here of their physiological development, further than that "they are just like other boys," so far as they know. It seems strangely odd that parents sufficiently well-constructed sexually, and sufficiently prolific, to generate a baker's dozen of offspring, should have begotten four imperfect daughters. In this instance the anomaly can hardly be charged to the consummation of a gradually evolved heredity.

5142 Washington Avenue.

LACERATIONS OF THE PERINEUM AND VAGINAL WALL.

BY GEORGE F. SHEARS, M. D.

Lacerations of the perineum and vaginal wall are not of themselves sources of pain or discomfort, unless they involve the sphincter ani. The wounds usually heal readily, and the parts soon become practically insensitive, but a host of other troubles follow the rupture of the levator ani and the consequent loss of support afforded to the uterus, bladder, and rectum. These unfortunate sequelæ do not make their appearance at once, but are of gradual growth, and the patient hardly realizes her condition until it is often almost irremediable. For this purpose I urge the restoration of the vagina and perineum to a normal condition, even if the distressing symptoms of prolapse have not yet made their appearance.

In the performance of the operation the complicated methods which have in view the erection of artificial bulwarks should be avoided, and the surgeon should aim to restore parts, not manufacture new ones. As a rule, the best guide to the lines of denudation is the cicatricial tissue which shows the lines of the vaginal injury. In certain cases in which the injury is the result of submucous laceration of the muscles, the cicatricial tissue may not be apparent, and the surgeon must depend upon his anatomical knowledge to enable him to determine the location of the injury which allows the relaxation of the parts. My observation and reading of the experience of others lead me to believe that lacerations of the submucous variety usually take place in the lateral vaginal sulci, practically in a line with the direction of the external laceration, so that the operation to be described is quite generally applicable to all incomplete tears of the posterior vaginal wall.

With the patient in the dorsal decubitus, the outlet is carefully examined, the line of injury determined, the abnormal dilatability of the vaginal canal estimated, and the amount of scar and relaxed tissue necessary to remove decided upon. One thing is to be remembered—the narrowing of the vagina and the advancement of the posterior wall really com-

mences, not at the integument of the vulva, but at the hymenal ring, otherwise the entrance to the vagina is encroached upon.

The various incisions are best made if certain cardinal points are first located and marked by hooks or forceps: namely, the posterior border of the hymenal ring on each side, the inferior extremity of the posterior column of the vagina, and the upper extremity of the laceration of the posterior vaginal wall, on one or both sides, as the case may be. This space may then be outlined by the knife, the amount of tissue to be removed being decided by the amount of vaginal relaxation. The removal of this tissue may be effected by either the knife or scissors, but preferably by the latter. Except in the exposing of divided muscles the denudation need not enter into the recto-vaginal space, but is confined to the removal of mucous tissue; in this way much needless hemorrhage is avoided. The divided ends of the muscles in the lateral walls are first brought together by catgut buried sutures. The position of the newly constructed vaginal opening is now determined by the introduction of silkworm-gut sutures, entering the lateral wall just inside the hymenal ring, passing down through all the structures except the rectal, and emerging at an opposite point in the posterior vaginal column. This stitch re-enforces the buried sutures, supports the muscles if the catgut is absorbed at too early a date, and prevents dead spaces. Its position at the entrance of the vagina enabled it to be removed without undue stretching of the vagina. The remainder of the wound inside the vagina is closed by fine catgut stitches closely placed. The opposite side is treated in the same way. The perineum is closed by three deep silkworm-gut stitches, which pass completely around the wound, and fine catgut stitches are used to closely coapt all wound edges. Two effects follow this operation when properly made—first, the caliber of the vagina is lessened, and, second, the posterior wall is advanced.

In the after-treatment rest and cleanliness are the objects to be obtained, the former by quietude in bed for two or more weeks, the latter by care during the operation and attention to minor details afterwards. Catheterization is rarely necessary. A piece of gauze well smeared with sterile vaseline placed in-

side the vagina will prevent urine from coming in contact with the internal wound, and thorough douching with boracic acid or sterile water immediately after urination will prevent any unfortunate results from contact with the external wound. A dose of magnesia sulphate given as soon as there is any desire for movement, usually the second or third day, followed by an enema, will secure an easy movement and prevent any strain upon the healing parts.



PLEURISIES OF INFANCY AND CHILDBIRTH.

BY F. P. M'KINSTRY, M. D.

The question may be raised, Why present a paper on pleurisy to the Bureau of Pedology?

The answer is that pleurisy in infancy and childhood presents problems in differential diagnosis of such importance as to merit special consideration.

The eminent French authority, Dr. J. Simon of Paris, in a clinical lecture on "The Pleurisy of Childhood," made the following statement: "If you want to understand the pleurisies of childhood you must forget pretty nearly all the classical and somewhat schematic notions that you may have formed of pleurisy in general."

Dr. Arnulphy, in translating the lecture for the Chicago Clinique (March, 1891), makes the following comment: "That this is sound clinical teaching every observing practitioner who has had a respectable amount of experience in infantile pathology will readily acknowledge."

We all know how frequently the subacute attacks of pleurisy in adults are overlooked to the damage of the patient and the discomfiture of the physician, and candor compels us to admit that such a mistake is inexcusable, as the diagnosis of pleuritic effusion in adult life is ordinarily one of the simplest problems in physical diagnosis.

Not so, however, the pleurisies of early life. Here the diagnosis is actually difficult, and will demand the most painstaking care and investigation.

The purpose of this paper is to direct attention to the clinical peculiarities of the pleurisies of infancy and childhood.

The first difficulty that confronts us is the fact that nearly all pleurisies in infancy are secondary to some affection of the lungs or bronchi, as broncho-pneumonia, lobar pneumonia, or tubercular inflammation. Pleurisy is also a frequent complication of the exanthemata, but even here the lung tissue is attacked first; in fact, it is claimed that infantile pleurisy never exists as a primary trouble. Of course, under these circumstances, the symptoms are overshadowed by the primary disease, and likely to be misinterpreted.

In children, as in adults, we have two forms of pleurisy: the dry, and that accompanied by effusion, either serous or purulent.

In the acute or dry form, the friction sound so characteristic in adult life is lacking. The pain is likely to be felt in the epigastric region, the shoulder, or some other remote point, and not at the site of inflammation; and in addition, as has been already stated, the attack is secondary. The most important diagnostic sign is the lack of motion of the affected side and the increased action of the opposite side.

The diagnosis of effusions has its peculiarities and difficulties. The usual means of diagnosis—inspection, palpation, auscultation, and percussion—have all to be qualified when dealing with infantile effusions.

On inspection there may be little or no bulging of the intercostal spaces, owing to the compressibility of lung tissue in early life.

Palpation usually discloses some vocal fremitus, and even with considerable amount of effusion fremitus may be normal. Auscultation usually reveals bronchial breathing (though having a distant sound when compared with the normal side), and percussion dullness, which is so characteristic, may be changed to resonance by too vigorous percussion.

Another peculiarity is the tendency for the effusion to become encysted. There may be one or more encysted collections of either pus or serum, usually pus. This condition is hard to diagnose, and unless its possibility is borne in mind, may render an attempted aspiration futile, or interfere with the success of an operation in empyema. Arnulphy designates this as "the most misleading feature of infantile pleurisy."

Another fact we should bear in mind is that most effusions in patients under three or four years of age are purulent. Fortunately, and contrary to the rule in adult life, most of these cases are cured by one or more aspirations.

After four years we may have, as in adults, a latent pleurisy with serous effusion, in which case the diagnosis can be made only by the physical signs. This form is often overlooked, and the case treated for malaria or on general principles. In our section the diagnosis of malaria is a sort of medical cave of Adullam, which gathers all sorts of clinical nondescripts. Some time ago I saw a boy with left-sided effusion, heart pushed to the right, and all the other classical signs, who had been treated for weeks for malaria! One aspiration cured his "malaria."

Fortunately, the prognosis in childhood is favorable. If the little patients are given any sort of a chance, the great majority recover even after empyema.

In regard to treatment, not much need be said, as after the diagnosis has been made the indications for treatment are usually plain. Acon., bry., ars., canth., and sulph. are the usual remedies.

Aspiration, incision, rib resection, all on indication, are the proper surgical measures, remembering that extreme surgical measures are not called for so frequently as in adults.



POST-PARTUM RESPONSIBILITIES OF THE OBSTETRICIAN.

BY MARION OUSLEY-RUSSELL, M. D.

When possible, it is as truly the duty of practicing physicians to prevent disease and pathological conditions as it is to direct intelligently the best methods for eradication.

Therefore it is that we are to consider the obstetrician's share of responsibilities in prevention of diseases which involve post-partum conditions.

Every general practitioner and gynecologist is daily coming in contact with patients who are suffering from pathological conditions which should have had attention in the post-partum period.

Far too often do we find women who have been healthy and happy before the birth of children suffering from the following symptoms: Backaches; headaches of all descriptions (though most frequently the vertex); indigestion; palpitation of the heart; constipation; leucorrhœa; menstrual irregularities; insomnia; neuralgia; mental and physical exhaustion, aggravated by slight exertion; and, more serious than all of these, the mental depression which robs mother and family of their natural enjoyments.

On examination we usually find the preceding train of symptoms due to laceration of the cervix, the perineum, or both, which may be of one or more years' standing.

In the majority of cases the patient is not conscious of the cause. She will probably tell you the attending obstetrician repaired the external laceration, but has nothing to say of the instructions which should have been given her husband or herself to have her call at his office within three or four months after delivery for an examination of the cervix.

We also find all stages of malignant diseases of the cervix due to neglect in the repair of lacerations.

Personally we have had three of these cases in a year, which were so far advanced that the patients died within six months.

Again we find obstetricians thoughtless or neglectful of their patients in allowing the mother to leave the lying-in chamber too soon, consequently she suffers from subinvolution of the uterus. Thus is laid the foundation for displacements, metritis, endometritis, endocervicitis, vaginitis, ovaritis, cystic degeneration of the ovaries and fibroid degeneration of the uterus, to say nothing of results on the nervous system.

Some obstetricians think it unnecessary to give much after-cure, because it is a physiological function of the uterus to bring forth offspring.

It is a beautiful truth that the human uterus was created for the purpose of bringing forth mankind. It is also true that the stomach was created to functionate and maintain animal life; both are absolutely necessary, but neither of them will be imposed on; both demand due respect and proper care, and our happiness is sadly interfered with if such care is not given.

The welfare of the babe is sometimes overlooked—that is, if the infant is fortunate enough to be a boy. Too frequently do we find cases of fretful, nervous, undeveloped babes that would have been very different had the obstetrician seen that they had been circumcised when two or three weeks old, a very simple matter if done at this time.

This is why we find boys at all ages often crying out through their irritated nerve centers to obstetricians who have been thoughtless—or worse, heedless of their responsibilities.

It would not be easy to estimate the amount of nerve force spent or lost from lack of development due to this oversight, to say nothing of other resulting evils.

If obstetricians were ever on the alert for their post-partum responsibilities, we gynecologists would not fare so well, while poor innocent humanity would suffer less and enjoy more.



THE TERMINATION OF PREGNANCY AT THE EIGHTH MONTH.

BY GEORGE W. PATCHEN, M. D.

Gestation is interrupted at its various stages for reasons well known, but too numerous to be considered in the limits of this paper. Premature labor is usually induced only when the welfare of the mother is thought of, but in this paper the interests of the child only are considered, as the position is taken that labors at the eighth month of pregnancy in no way jeopardize the welfare of the mother, but are often to her interest as well as that of the child. The procedure is suggested in those cases where a previous confinement has demonstrated as unusually large head. When I speak of a large head, I mean one that is relatively large in proportion to the pelvic canal to be traversed. In support of the opinion advanced, I would like to cite the following cases: The morning of January 26, 1899, I was called to attend Mrs. V., who lived some nine miles from the city. On my arrival at 8 a. m., I found a woman, aged twenty-four, whose height was five feet eleven inches, and whose normal weight was 190 pounds. Her features were so distorted that her own mother would hardly

recognize her, and she was so immense that I expected twins, or possibly a number of little ones. Her family and personal history were good up to the time of her pregnancy. During gestation she suffered the usual ills of women in like condition, but during the last two months the urine was very much diminished. She said she had also gone eleven months. Upon local examination I found an obliterated cervix, and an os that I could hardly reach without inserting my hand into the vagina. At this time she showed no signs of convulsions, and as she had only slight pains and having to make a call a few miles farther, I left her. On my return four hours later I found her in convulsions. The os was still out of reach and not dilated. To make a long story short, I kept her partially under chloroform for twelve hours, or until twelve o'clock that night, all the time using every effort to dilate the cervix, which I finally got properly relaxed, when I applied the forceps with the head still above the pelvic brim. After two hours of hard work I delivered her of a thirteen-pound boy, and using all the skill I could command I was unable to resuscitate it, as the cord had been twice around the neck and once around the arm. She had a protracted convalescence, but finally recovered, and one year later to a day, January 26, 1900, I delivered her of a ten-pound boy, also quite dead. The last labor was uncomplicated by uræmia, as she had been under treatment for some time previously. Now, should this woman ever become pregnant again, I shall deliver her at the eighth month.

The next patient was Mrs. M., a medium-sized woman, aged thirty-three: primipara. Her husband was a large man, with a large box-shaped head. On May 20, 1900, I relieved her of a twelve-pound girl, after a difficult forceps delivery, but could not resuscitate the child. She soon became pregnant again, and last Monday night, June 24, 1901, I delivered her of a live ten-and-one-half-pound boy. But she had only carried the child eight months and five days, as it took me several days to induce labor. I had an improvised incubator ready in case I should need it, but it was unnecessary. I saw the child and mother at four a. m. yesterday morning, and I am pleased to say that they are both apparently well and happy as could be expected.

THE STUDY OF PEDOLOGY.

BY W. H. BIGLER, A. M., M. D.

It is not so very many years since pedology began to be made the object of special study, but during these years the subject has received more or less thorough treatment at the hands of many most able writers. That the standpoint, and consequently the treatment, of this branch of medicine has varied with the different authors is seen from the names given to their respective works. While the name "pediatrics" refers particularly to the healing of children, and should, therefore, be confined to a consideration of their diseases and treatment, "pedology" embraces a much wider sphere, and should include the care of infants and children in health as well as in disease, their watchful training in mind as well as in body. "Diseases of children" would, strictly speaking, confine the subject to a consideration of those diseases which are peculiar to children exclusively, the number of which is very small. "Disease in children" is a preferable term, since it implies that childhood or immaturity modifies in various ways the features of disease as they usually present themselves to us in the adult.

As the number of those wishing to devote themselves to this specialty seems to be continually on the increase, a few considerations on the general subject of its study may not be out of place.

The fundamental principle upon which all our study must be based is the recognition that, although the infant eventually becomes the adult, with whose anatomical, physiological, and pathological conditions we are familiar, it does so only by a gradual process of development and improvement, the characteristics of which are not so generally known. While passing through this process, which concerns not only the anatomical structure of the various organs, but, of necessity, also the completeness and perfection with which their functions are performed, children are liable to derangements and pathological conditions which will manifest themselves and their influence by symptoms and conditions varying according to the

stage of development in which the little patients are found. The first object of our study must therefore be the normal anatomical and physiological peculiarities of children, as differing from those in adults. Of these the first to occupy our attention will be those which concern the two vital functions in which the greatest changes occur at the moment when the infant, separated from its mother, begins its independent existence, viz., the respiratory and circulatory organs and functions. A knowledge of the alterations which occur in these as they gradually accommodate themselves to the changed requirements forms a necessary basis for a correct recognition of pathological conditions during this period. An acquaintance with the variations normally occurring in the performance of these functions will lead to an appreciation of the true prognostic value to be attached to symptoms which may occur. The anatomical peculiarities of these two systems must always be kept in view when making a physical examination. Not only are the organs themselves to be correctly located by percussion and auscultation, but account must also be had of the peculiarities in the structure of the containing walls of the thorax in appreciating the value of the sounds obtained by these means. The relatively large size of the liver will also have a bearing upon the information derived from physical examination.

The next point to be studied is the immature condition of the nervous system. This is, in my view, of equal, if not of greater importance than the foregoing, for it is under the influence of this that all the various functions are performed, not only those of circulation and respiration. A study of the development of the nervous system from its early purely reflex activity to its gradual, almost complete, control of the whole intricate mechanism of the adult organism is one of the most interesting and important that can be presented to the medical mind. Through the growth of the nervous system we can trace the awakening of consciousness, the mysterious birth of the Ego, and in it alone can we find the incomprehensible bond of union between the material and the immaterial. Without a clear comprehension of the unstable character of the infantile nervous system, and its sudden and excessive reactions to

stimuli, many of the symptoms and conditions arising during infancy and childhood will be but imperfectly, if not falsely, understood. Sudden changes in rate of pulse and respiration, in temperature, in activities of the digestive and genito-urinary apparatus, can find in this instability their only adequate explanation. Recognition of this fact will guard us against the too common fault of at once seeking for some germ upon which to throw the blame for the disturbance observed.

In the study of the digestive system and its functions there is one point which no doubt frequently escapes notice, and that is the important relation between the small size of the naso-pharynx and the performance of the act of sucking, and therewith the ability to take sufficient nourishment. This cavity is so small that it takes but a slight swelling, or the secretion of only a small quantity of mucus, to occlude it entirely, and thereby cut off the supply of air except through the mouth. This, of course, renders the act of sucking almost impossible, and will, if allowed to continue, result disastrously for the infant. The rather more vertical position of the infant stomach and the imperfect development of its greater curvature must be realized in order to appreciate the significance of simple regurgitation and overflow from repletion, as distinguished from true vomiting, the result of gastric disturbance.

We will be on our guard against dilatation of the stomach, knowing how readily distensible are its walls, and how often nurses resort to feeding as their only known means of quieting a restless infant.

In the intestinal canal, the relative shortness of the colon, and its more pronounced sigmoid flexure, or even flexures, will render us alert to the danger of intussusception, and prevent us from overlooking its symptoms.

The process of dentition, with the great demands made by it upon the whole organism, must have a decided modifying influence upon all morbid influences occurring during its continuance. There has shown itself in late years a tendency to minimize this influence, and to deny the force of many of the careful observations made by older practitioners. Personally,

I think the reaction against the perhaps too great importance formerly attached to teething has been excessive, and that not enough account is now taken of the results of the diversion of so much physical and nervous energy to the formation and eruption of the teeth, manifesting themselves often in remote and obscure symptoms. While not all symptoms during the teething period are to be directly ascribed to this process, it undoubtedly must be regarded as an important factor in their production and modification. The symptoms and prognosis of a disease occurring during active teething will be found to differ considerably from those of the same disease at another time.

Applying our knowledge of the influence of the nervous system upon the activity of the digestive organs, found even in adults, but to a much greater degree in children, we will be led to many measures in treating their disorders not suggested by these disorders themselves.

In the study of the genito-urinary system the pronounced effects of the reflex action of the nervous system and its unstable equilibrium in the production of most serious symptoms remote from their origin must ever be kept in view. We refer not only to the well-known effects of anatomical peculiarities of the sexual organs, such as tight prepuce or hooded clitoris, but to the less-frequently recognized symptoms due to the gradual development of the whole sexual system through childhood up to puberty. In all nature we find that the sexual system is the central point around which all the other activities revolve, and according to whose requirements they are more or less modified. The propagation of the species is the ultimate end of all nature's efforts, and in man alone has the sexual system been relegated, by a so-called higher civilization, to a subordinate position, and its demands misinterpreted, neglected, or suppressed. Too little attention is usually paid to this point, both on the part of the family physician and of the specialist, during the years preceding and following puberty. Not only does the whole physical organism sympathize with the increased growth and development of the sexual organs and functions, but the mental and emotional spheres are aroused and stimulated, often unduly, to new activities.

It requires the greatest tact on the part of the physician to steer clear between the Scylla and Charybdis of absolute silence on this subject and premature disclosures to his young patients. We have often to contend with the mother's fond belief in the perfect innocence and ignorance of her darlings on the one side, and the father's desire himself to tell his son all about such matters, and thus to anticipate any information likely to be imparted by playmates. There is much in favor of allowing the parent or physician to be the first to speak of sexuality to a child, but the danger of telling too much is greater than that of telling too little. Let the information on any point be final, so as not to arouse curiosity, but let it not touch at all upon points which have not yet presented themselves as objects of wonder to the mind of the child. Let those practical people who are ruthlessly trying to kill Santa Claus, and exterminate all fairies with infant powder, be the ones to tell the children where babies come from, and how they get there. I say, allow some field apart from the dull gray road of monotonous daily life, where the child's imagination may revel; it will soon enough be compelled to confine its excursions therein to the very infrequent holidays in later life.

It is the part of a wise physician to control his patients and their environment at this critical time with definite instructions as to the expenditure of energy at home, at play, and in the school. I would here wish again to enter a short but solemn protest against the present senseless system of education, as pursued, especially in our public schools, whereby the scholars who are unfortunate enough to be able to pass through the prescribed course are sent out with a thin veneer of superficial culture, covering unduly attenuated mental capacities in nervously exhausted and weakened bodies.

From a study of the skeletal system of the infant and child, and from a knowledge of its peculiarities, we will be enabled to guard against faults and diseases resulting from improper food, dress, and exercise. What might be indulged in with impunity by an adult may, in the imperfectly developed child, be attended by most serious consequences; while at the same time conditions, irremediable in the former, may, from the same cause, be amenable to treatment in the latter.

It will be unnecessary to go into any further details. Enough has been said to show that the anatomical and physiological peculiarities of the immature have a decided effect in modifying the manifestations of disease, and that they should form the basis of the study of pedology.

In the practice of medicine generally cultivated powers of observation are required, but in no branch of the profession are they as essential as in pedology. Every sense must be called into play, and trained to observe correctly and with the finest discriminations. Symptoms learned, where possible, from the patient, if that patient be a child, are more frequently misleading than reliable, and the physician is usually thrown upon his own resources and upon the knowledge gained from his own observation. Semeiology becomes, therefore, a very important adjunct to this study, and while seemingly dry and tedious to the student will stand him in good stead in later years.

If it be kept in mind that the children of the present generation will be the workers in the next, and that upon them will depend the character of the future, the importance of a study of everything conducing to our power to give them sound minds in sound bodies will be manifest, and will tend to enlarge the scope of pedology, and to give it a place among the essentials in the curriculum of every medical college.



BELLADONNA AS A PROPHYLACTIC IN SCARLET FEVER.**BY ALICE HUMPHREY HATCH, M. D.**

It is not with the thought of bringing a new idea before you that I have decided upon my subject, for the thought originated in the mind of our noble Hahnemann more than a hundred years ago, at which time the Sydenham type of scarlet fever prevailed in a severe epidemic form in Europe. The characteristic symptoms of this particular epidemic were so like the provings of belladonna that the master mind reasoned that a remedy which produced results so closely resembling those of scarlet fever would be not only curative when the disease had already developed, but that it might also act as a prophylactic against the contagion.

Let us have the record of the discovery in Hahnemann's own words as given by Hughes: "In the beginning of July, 1799, when a fatal form of scarlet fever was most prevalent, the mother of a large family had a new counterpane made by a seamstress who, without the knowledge of the former, had in her small chamber a boy just recovering from scarlet fever. The first-mentioned woman on receiving the article examined it and smelled of it, but, as she could detect no smell, she placed it beside her on a sofa on which, some hours later, she lay down to sleep. In this way alone she acquired the infection. A week subsequently she was suddenly attacked with quinsy and its characteristic shooting pains in the throat, which were subdued in four days. Several days afterward her daughter, ten years of age, was attacked in the evening by severe pressive pains in the abdomen, itching in the head and body, rigor over the head and arms, and paralytic stiffness of the joints. Her sleep was restless during the night, with frightful dreams and general perspiration over the body, excepting the head. I found her in the morning with pressive headache, dimness of vision, shiny tongue, some ptialism, the submaxillary glands hard, swollen, and painful to the touch, and shooting pains in the throat when attempting to swallow. She was free from thirst; pulse quick and small; breathing

quick, hurried, and anxious; very pale and though feeling hot; body pushed forward to lessen the pain. She complained of stiffness, with an air of much dejection, and shunned conversation, feeling that she could speak only in a whisper. Her look was dull, yet startling: her eyelids widely stretched, face pale, and features sunken.

"Knowing too well the ineffectual nature of the ordinary favorite remedies, I resolved in this case of incipient scarlet fever not to act with reference to individual symptoms, but (agreeably to my new synthetic principle) to obtain, if possible, a remedy calculated to produce precisely the above-mentioned symptoms. I therefore gave the girl, who was already afflicted by the first indication of scarlet fever, a dose of belladonna (432-1000 of a grain of the extract, which according to my subsequent experience is too large a dose).

"She remained quietly seated all day, without lying down, and the heat of the body diminished; she drank but little, and none of her symptoms increased, and no new ones appeared. She slept quietly, and the following morning, twenty hours after taking the medicine, most of the symptoms had disappeared without any crisis, the sore throat only continued, but in a less degree, till evening, when it left. The following day she was lively and ate and played as usual.

"I gave a second dose, and she remained perfectly well, while two other children of the same family fell ill of the scarlet fever without my knowledge, when I could not treat according to my general plan detailed above. I gave my convalescent a small dose of belladonna every three or four days, and she continued in perfect health.

"I now earnestly desired to preserve the other five children from infection, their removal being impossible, and I thus reasoned: A remedy capable of quickly checking a disease in its first onset must be its best preventive, and the following occurrence strengthened my opinion: Some weeks previously three children of another family fell ill of severe scarlet fever. The eldest daughter alone, who had been taking belladonna internally for an external affection of the joints of her fingers, to my great astonishment escaped infection, although in other cases of epidemics she had readily taken them.

"This decided me to administer to the other five children very small doses of this excellent remedy as a preventive, and as its action lasts only three days I repeated the dose every seventy-two hours, and they all remained in perfect health, though surrounded with infection.

"In the meantime I was called to attend another family where the eldest son was ill with scarlet fever. I found him in the height of the fever, with the eruption on the chest and arms.

"He was seriously ill, and it was too late to give the specific prophylactic remedy. But wishing to preserve the other children, of four and two years of age and one nine months, I directed the parents to give the requisite dose of belladonna every three days, and had the happiness of seeing them escape the disease in spite of constant intercourse with the sick brother."

It is recorded that Hufeland, the great protomedicus of Prussia, reported in favor of the prophylactic action of belladonna in scarlet fever. His report was based on observations of his own and the sum of the testimony of others. As a consequence of his reports the Prussian government in 1838 decreed that it be obligatory on physicians to give belladonna as a prophylactic whenever scarlet fever prevailed as an epidemic.

As I have remarked, the type of scarlet fever in which we are to anticipate the best results is the smooth red type. The nervous excitability is present. There is great febrile disturbance. The pulse full and bounding, face flushed and congested. The blood is heavily charged with the poison of the disease. The mucous membranes of the nose and throat are greatly congested, red and shiny, dryness with but little thirst. In fact, the mucous membranes of the whole body may be involved. If your patient is of the belladonna type—blue eyes, fair skin, with the tendency to high fever with every physical disturbance—your remedy will be of so much greater value in the treatment of the case.

It has fallen to my lot to treat a number of cases of scarlet fever since I began the practice of medicine, and in a large majority of the cases there have been one or more other children in the same family who have been exposed to the con-

tagion, and whom I have desired to protect from the ravages of this most serious disease. A few of these cases I will relate.

Case I.—A child five years of age had been ill two days when a scarlet rash was discovered on the chest, and the parents decided to call a physician. When I saw him an hour later I found him completely covered with the rash, with a temperature of 104° , pupils dilated, and all the other symptoms that go toward making up a good picture for belladonna. It was accordingly given during the whole course of the disease, and it greatly modified the symptoms, for in a few days the child had so nearly recovered that the nurse found it difficult to keep him in bed. Two other children in the same family had been exposed to the disease during the time preceding my visit, and the parents feared they would be ill too, but I told them I would give them a remedy that would prevent the disease. Accordingly they took belladonna three times a day. I was pleased when I made a subsequent visit to hear the father of the patient ask, "Doctor, have you ever used belladonna as a preventive of scarlet fever? I have been reading in my encyclopedia about scarlet fever, and the author tells of the beneficial effects of belladonna in preventing the disease in children who have been exposed?"

I replied: "That is the remedy I have been giving to your children for the last two days." The fond parent was satisfied, for no symptoms of the disease appeared in either of his children. I was pleased to note not only the father's interest in the cases, but also the fact that the author of the encyclopedia had imbibed enough of the truths of homeopathy to consider it of authentic value in the preparation of his article.

Cases II., III., IV. were all in the same family, and were all exposed to the disease at the same time—from a sick baby having been brought into the home. The sick baby was given this remedy for a few days, and made a prompt and uneventful recovery.

I was very anxious to prevent the disease in the exposed children. Isolation was impossible, for they all lived and slept in two or three rooms. True to my previous teachings of the prophylactic value of belladonna in these cases, I supplied them with the remedy, and gave directions for its administration.

Four days after the exposure the oldest child, a girl of seven years, was taken ill with a sore throat and high fever. I was called. Found her with a temperature of 104° , throat red, rough, and swollen; with the typical scarlet-fever tongue; submaxillary glands swollen; nervous and easily startled. Belladonna seemed to be the remedy best indicated, and I directed it given at more frequent intervals. The symptoms began to abate at once, and when I called the next day, twenty-four hours later, I found her quite well. There was no return of any of the symptoms and no new ones excepting desquamation, which was quite remarkable.

Two days following this another child of five years was taken ill with a fever 102° ; sore throat; mucous membrane of nose and throat much inflamed; no rash appeared; all symptoms disappeared after the third day. Recovery was complete. Belladonna was used, as in the other case. The day following the child of three years slept all the afternoon; when I called, at 6 p. m., I found the temperature to be 105° . No rash, no soreness of the throat. Before morning the fever was gone. The child was irritable during the next day, but had no further trouble. Belladonna was used.

I am satisfied that in each case of these three cases the children would have had true scarlet fever had it not been dissipated by the prompt and efficient action of belladonna.



ÆTIOLOGY OF PUERPERAL ECLAMPSIA.

BY JAMES T. MARTIN, M. D.

In the past there has been so little definite knowledge of the ætiology of puerperal eclampsia that it is very difficult to say just what professional opinion has been regarding it. Indeed, the theories concerning it are as varied and as ingenious as the individuality of the numerous writers on the subject could make them. Many of the views held by the older authors have lately been very much modified, and the trend of thought on the subject, at the present, seems to be much more rational than heretofore.

It is my purpose in this paper to give something of a summary of the recent thought regarding the ætiology of this disease, as well as to point out, or call attention to, the drift of professional opinion regarding its origin and future pathology. It is only in the recent past that albumin was held wholly responsible for the trouble. But a little more recent observation demonstrated that there were structural changes in the kidneys themselves, and then their insufficiency of action was the cause, and later, ptomaines, the development of carbonic acid and carbonate of ammonia in the blood, and hydræmia, have all been considered ætiological factors. But these theories have almost entirely given way to the belief that the retention of urea in the blood is directly the cause of the convulsions, as it has been demonstrated that the danger in such cases is directly in proportion to the amount of retained urea. But, even admitting that such is really the case, it is still a mooted question whether urea or any of the other poisons, or all of them together, cause the convulsions.

All these factors are the result of altered function, due to the structural changes which have taken place in various organs of the body,—notably, the kidneys, liver, and spine,—and it might be laid down as an axiomatic fact that, whenever structural change takes place in any organ, its function will be altered directly in proportion thereto. A recent writer hit close to the truth when he suggested that albumin is not the cause, but is only a symptom of a more deep-seated

trouble which is the cause, and Lusk goes so far as to say that albumin is one of the effects of eclampsia. It is generally conceded, however, that its presence usually serves to call attention to the very serious nature of the case, although its absence does not necessarily mean that the subject will escape the eclamptic seizure, from the fact that the same serious condition may prevail. It will be seen from recent discussions that the blood of the eclamptic patient contains more, and the urine less, poisonous material than normal. That is, the waste and effete material, formerly eliminated by the kidneys and other excretory organs, is retained in the blood and becomes an irritant poison. This, it is thought, causes peculiar irritating changes in the psychomotor centers of the cerebral cortex, causing the convulsions so much dreaded. The old theory that the pressure of the gravid uterus on the ureters and kidneys was the cause of the trouble has been entirely given up.

A writer in *The Canadian Prac.*, September, 1892, suggests the ingestion of lime in the drinking water as one of the causes, the lime forming a combination with the existing ptomaines and thus producing the irritating poison necessary.

Clark and Skelton, *American Journal Obst.*, February, 1897, writing upon this subject, insist that renal insufficiency is not the primary cause, but think that the ætiology of the condition is to be found in the defective hepatic activity, as the liver is shown, by post-mortems on persons dying with eclampsia, to undergo certain degenerative changes. These changes are described as fatty degeneration of liver cells, together with capillary dilation and formation of the neurotic patches and infarcts. From the presence of acetone in large quantities, it is suggested that there is present an abnormal decomposition of organized proteids, or it may be an imperfect elimination of the non-nitrogenous products of retrograde metamorphosis due to the fatty degeneration of liver cells, whose activity is overburdened by the increase of biliary salts derived from the fetus, and which must be eliminated by the maternal liver. From the further decomposition of these retained carbohydrate products convulsive poison and acetone are supposed to be developed, and at the same time, from the faulty action of the liver in not completely changing waste nitrogenous

products into urea, bodies which irritate and inflame the kidneys in their elimination cause further insufficiency of renal action. Other observers have noted, in these subjects, well-marked changes in both the liver and kidneys, and have concluded that puerperal eclampsia is due to the action on the cerebrum of substances formed in the evolution of local infective processes, and also a special microbe is supposed to get in its deadly work, by operating upon the nervous system already prepared by the gravid state.

Again, a writer in the *St. Louis Med. Surg. Journal*, May, 1896, finds multinucleated cells in the blood vessels of pregnant women, that are supposed to come from the placenta, produced by an irritating poison and forming multiple capillary thromboses. From these facts the conclusion is drawn that the disease is entirely due to the presence in the blood of a coagulating ferment, formed either by the degeneration of the free placental cells found in the blood or by degenerative changes in the placenta itself.

The pathological changes in the kidneys and liver that have been observed in these cases were, in all probability, in existence long before the faulty metabolism was sufficiently marked to attract attention; and it seems hardly necessary to call attention to the fact that any organ in a pathological state will exhibit perverted function.

The highest prerogative of the human race is the reproduction of its kind. It is safe to assume, then, that the greatest effort nature is called upon to make is the production of a new being, and when this is too great a task for the strength of the mother, the effort will be faulty. The excretory organs of the mother have not only to perform the work to which they have for all her previous life been accustomed, but, in addition to that, the waste material from the new life must be eliminated in the same way. This imposes a much heavier burden on the mother than she was previously called upon to bear; and although nature has contemplated this, and prepared for it in a measure, yet there are many individuals who do not come up to the required standard of health to make a complete success, so that the effort of nature to do the increased amount of work results in the faulty metabolism. This is not only true

of the excretory organs, but it is also true of the spinal cord, which has a very important function to perform during labor.

The disease pursues a rapid course, increasing as gestation increases, and finding its acme when the parturient has reached full term. The progress of the disease seems to be directly in proportion to the increased growth of the fetus, showing oftentimes that the patient has reached her limit of endurance about the time labor is terminated. It is said that more convulsions occur in primiparæ than in multiparæ, but I believe that the statistics are very liable to mislead in this case, from the fact that a careful record is not kept of their subsequent history, and that women who have once suffered this trouble do not desire to repeat the process. But, admitting that primiparæ do suffer more, it is probably due to the greater effort required during the first labor, as the stronger, healthier women are able to stand the strain. Should a second confinement come to one of these weakly women, it will be easier borne on account of the preparation that is had by the first labor. The fact that disease may remain latent in the system for an indefinite period of time, and that the tendency thereto may be transmitted from one generation to another, is a factor always to be considered when studying the manifestations of any acute disease, and especially disease occurring during gestation where the life of the patient is so wrapped up in the result. This was taught by Hahnemann and has been one of the tenets of our school ever since, and at the present time, in his "Origin of Disease" Dr. Arthur V. Meigs says:

"Heretofore diagnosis has been narrowed by the prevalent conception that disease usually lights upon one organ or another and confines itself to a restricted district. In the endeavor to combat this error it has been repeated so often, perhaps, as to make it a wearisome reiteration that disease is generally widespread in its effects—that latent and chronic disease has an almost inconceivably great influence in starting attacks that appear purely acute and in determining their course and outcome."

Sufficient observations have been made to at least call attention to the fact that during the progress of acute Bright's disease, occurring during gestation, well-marked interstitial

changes have taken place in the kidneys, liver, and spine; and that these organic changes show a remarkable resemblance to the pathology of the chronic disease, and also the fact that many women who have had manifestations of this trouble during gestation have afterwards died of chronic Bright's disease, together with the observations on chronic diseases by Dr. Meigs and others, strengthens my belief that the Bright's disease, as it occurs during gestation, is but an acute manifestation of the latent and chronic disease.

The microscopical pathology of chronic Bright's disease, as given by Dr. Meigs, is in substance as follows: The capsule becomes hardened, the malpighian bodies become partly obliterated, and the secretory cells become less in number, and the differentiation of the medullary from the cortical substance becomes less and less marked. The liver undergoes a very similar change or degenerative process; its fibrous network becomes thickened, the liver cells take on a fibroid growth, and the secretory cells become less in number, from the same cause. Similar changes take place in the lungs, heart, and circulatory system, and in fact most organs of the body take on a fibroid growth. But aside from the changes that take place in the kidneys and liver, the most important changes are noted in the brain and spinal cord. The fine, fibrous filaments constituting the framework of the cord become thickened and inelastic; the white substance of Schwann becomes muddy; the axis cylinders are ill-defined; the external envelopes are indistinct or lost, and the whole substance seems to be melting into a structureless granular mass, and later the pia mater becomes adherent to the cord, and there is a general increase of morbid fibroid tissue. This morbid fibroid tissue is found in most all chronic diseases, in old age, and in persons prematurely old. It seems to be one of the peculiar manifestations of chronic disease, whether latent or not, and involves the entire system, predisposing to numerous acute attacks. The leading minds of the profession are coming to the conclusion that even in acute disease, whether of an infectious nature or not, there is a certain predisposing, auxiliary, intrinsic, or contributing influence that is necessary for the pathogenetic operation of the specific exciting cause, and, while I am willing to admit that

there may be many contributing causes, yet I can see no reason to doubt the fact that latent and chronic disease is an ætiological factor in puerperal eclampsia of no small proportion. It has been shown that the spinal cord is affected in eclamptic subjects, and also in chronic Bright's disease.

Physiology teaches us that the spinal cord is the great co-ordinating center of the body, and that it arranges and controls all reflex movements. But the structural changes which the spinal cord has undergone during the progress of acute Bright's disease are sufficient to inhibit it in the performance of this, its natural function, and to cause failure in co-ordinating the reflexes necessary to produce normal, regular labor pains; and this condition will also account for the spasmodic or convulsive movements that so often occur in these cases.



AUTO-INFECTIONS OF PREGNANCY.*

BY WALTER C. LOVEJOY, M. D.

The Importance of an Early Diagnosis.—If a condition of auto-infection is allowed to go untreated in the pregnant woman, the life of both mother and child are imperiled.

Sources of Infection.—The kidneys provide the most virulent toxines, by throwing into the circulation an excessive amount of urea, which, coming in contact with the nerve centers, produces serious nerve symptoms. Another source from which toxines are absorbed is the intestinal canal, particularly the colon. Here the colon bacillus may excite such a degree of fermentation that serious inflammatory conditions will result.

The liver and skin, if not kept freely acting, may also be indirectly, at least, further sources of infection. The portal circulation should be kept free, thus allowing the contents of the bowels to receive the antiseptic action of the bile thrown into them.

Symptoms.—There may be no warning objective symptoms. The indications are generally those of a systemic intoxication. Rarely appearing suddenly, generally there are premonitory indications, on account of the gradual absorption of the excretory elements. So insidious do the symptoms develop that they often escape attention; still, they are sufficient for the close observer to determine that a toxæmia is present. The patients complain of persistent and severe headache, increasing in spite of all treatment. It is not a localized pain, but spreads all over the top of the head down in the nape of the neck. Nausea and vomiting are present, but are not that of pregnancy, since they occur at all times and are preceded by a peculiar feeling of goneness and painful faint feeling in the pit of the stomach. There may be uncontrollable vomiting. There is characteristic œdema. At times the patient is bloated to a marked degree, and then in a few hours the œdema will have entirely disappeared. We have in some of these cases

* Paper read before the Illinois Homeopathic Med. Association.

very often temporary local œdemas, such as one hand or foot being involved, disappearing as quickly as they arise. To my mind this traveling œdema is peculiar to this condition, and may be considered typical of the uræmic state.

Convulsions rarely appear before labor; when they do appear earlier, they are preceded some days by twitchings, which are limited to the face or one of the extremities. The explosion occurs frequently at the time of labor, or soon after. This is followed by a greater discharge of urine, with an increased excretion of urea, and now albumin and casts may be found for the first time.

Treatment.—The general mode of procedure in the management of the pregnant woman is the prevention of auto-infection. Since my ideas in this paper run somewhat parallel to those contained in an article of the April 20th number of *The Medical Record*, written by S. Mark, M. D., of New York City, it is proper for me to state that the preparation of this paper antedated the appearance of Dr. Mark's by several days. His paper is a well-written one, and deserves careful consideration. The subject is treated more thoroughly than it can be by me in this short article.

It is not my purpose to discuss the pathology of this state of toxæmia, or to define the exact chemical composition of the poison which produces the mischief. It is certainly a condition which is too often overlooked until too late to remedy, and the loss of two lives has perhaps been the penalty of our neglect.

Timely examinations of urine should be made, and the per cent. of urea being excreted should be definitely ascertained. These examinations should be made semi-monthly, and if there is not a gradual increase in the amount of urea passed in twenty-four hours after a couple of weeks of energetic treatment, surgical means should be resorted to.

It is my belief that we too often make the mistake of examining only for albumin and casts, and overlook the examination for urea. The uræmic state I know from observation is not invariably, as some teach, associated with casts and albumin. I have seen some of the severest convulsions occur in women who had shown no trace of casts in the urine. The

examination for these latter abnormal constituents should be made secondary to the search for urea.

It has been stated by some authority that "eclampsia is as absolutely preventable as is puerperal sepsis," and I believe this statement to be founded on facts, and therefore by proper treatment of the pregnant woman proven to be true.

In prophylactic measures lies the chief source of successful treatment of this condition. The first thing to do is to begin a systematic semi-monthly examination of the urine, to ascertain the amount of urea excreted in a given twenty-four hours. If there is a normal urea excretion, the presence of albumin casts need not excite alarm. The normal excretion of urea shows that a sufficient amount of the effete products is being excreted, and consequently there need be no concern, for this is a sufficient guide to the normal workings of those great excretory organs, the kidneys. Every excretory organ should be stimulated, and there should be complete rest in bed. The bowels should be kept open by calomel, followed by different salines; the skin needs stimulation by hot packs and diaphoretics. Pilocarpine I am not friendly to, for, while it is a powerful diaphoretic, it acts at the expense of other secretions, and is not without danger.

Drugs.—Nitro-glycerine, nitrate of sodium, chloral, and chloroform are among the most useful remedies. These are all vasomotor dilators, and it is from this class of drugs that we may hope to select a remedy for these cases. *Veratrum vir.* has been lauded by different persons in the treatment of uræmia. I have not had the results that others have claimed for it. It certainly will reduce both the volume and rapidity of the pulse, but this will accomplish nothing, as this action is symptomatic and not curative.

Venesection.—Owing to the fact that free flowing from the uterus after it is emptied helps the eclamptic state, it is reasonable to conclude that venesection would perhaps give relief before the delivery. It seems to me that there is sufficient evidence to prove this fact to be true.

Diet.—Milk and buttermilk should be the mainstay in this disease. Water should be given freely. Of mineral waters, the Poland Spring water is the one I most rely on. Rectal

and colon flushes should be regularly employed. These will not only cleanse the bowels, but stimulate the kidneys as well. If saline injections are used, as they should be, a great deal of nutrition can be thus administered. Alcohol as a beverage should be strictly prohibited. It increases the waste products of the body and diminishes the power of elimination; by its use chemical products may be formed producing auto-intoxication. The custom of prescribing beer to pregnant women I believe to be a dangerous one. The ordinary beer-drinker is the most prominent example of auto-intoxication.

Having taken so much time in referring to auto-intoxication from the kidneys, I have only opportunity now to briefly mention the somewhat similar condition that may obtain from the intestinal canals. "Hufeland's Art of Prolonging Life," written in 1790, distinctly recognizes auto-intoxication states generated in the intestinal canal by the fermentation and changes of food and drinks.

There is no doubt but that the eating of too large quantities of food, supplying more nutriment than can be assimilated, furnishes conditions for poisoning from the portion which is not used. Constipation may produce a like result. Putrefactive changes in certain foods within the intestinal canal are more liable, for obvious reasons, to produce auto-infection in the pregnant woman than in any other case, and therefore special care should be taken that she should not be overfed, and that she should have only aliment that is easily digested and eliminated, and a free and regular action of the bowels should always be maintained.

Finally, I wish to emphasize only two points in this paper, viz., that many women go to term with albuminuria without symptoms referable to toxæmia. In the most desperate cases there are found often neither albumin nor casts. Urea is always found markedly diminished in the so-called true toxæmias of pregnancy. Semi-monthly examinations should be made of urine for the purpose of ascertaining the per cent. of urea in given twenty-four hours. In the second place, do not give alcohol as a beverage to the pregnant woman.

FURTHER CONSIDERATION OF APPENDICITIS.*

BY O. S. RUNNELS, A. M., M. D.

However trite the subject of appendicitis to the specialist, it is evident that enough has not been said concerning it, and that the profession in general would do well to carry its definition and treatment to a greater state of perfection. So long as five per cent. of our mortality is due directly or indirectly to appendicitis, the occasion still exists for the enlargement of our knowledge upon the subject, especially since at least eight-tenths of this death rate is most assuredly avoidable.

That the general acquirement of knowledge upon the subject is still in a backward state is evidenced whenever appendicitis is under discussion. Many physicians still assert that they see but little of this disease, and that they cure what little they see by medicinal and purely expectant methods, while the profession in general is ranked in all grades of opinion from the modified medical devotee to the radical surgeon. This variance of opinion can be charged to no other cause than the non-comprehension of the problem. It means that opinions have been formed out of inadequate data, and that observation and deliberation must continue till a consensus of opinion shall have been attained. What that general opinion is to be can be doubted by none who has been privileged often to view the diseased appendix in situ, and who has learned thus of the many complexities that embarrass diagnosis and make reliance upon expectant methods in very many cases a rapidly fatal delusion. It is foreshadowed further by the widespread dissemination of correct ideas that is going on, and in the rapid growth of the number of practitioners who are clear and positive in their insistence upon immediate surgical intervention in all well-defined cases of appendicitis, and especially if the case in question be of the fulminant order, or does not in a few hours give unmistakable evidence of satisfactory improvement.

No physiologist has been able to give a valid reason for the retention of the appendix vermiformis, or has indicated any

* Read before the Kentucky State Homeopathic Society.

function of it that is vital to the human economy; and no instance of disturbed nutrition has yet been adduced in any case of appendix extirpation. Anatomically and histologically the appendix is analogous to the cæcum—no tissue element being found in it that is not found in the bowel to which it is attached and of which it is a part. The thing noticeable, however, is that the mucosa, the musculature, and the serosa that make up the structure of these two portions of the intestine are found in the appendix only in an embryonic or backward state of development; that the muscular fibers, both longitudinal and circular, are much less prominent, the latter in some cases being almost wanting; and that neither the mucous coat nor the serous coat gives abundant evidence of free vital activity. Everything goes to prove that the appendix is an atrophied portion of the cæcum,—a rudiment, a vestige, a remnant,—which in nearly all other mammalia, the quadrupeds especially, is still in a normal state of development and activity. We may conjecture as to why nature is thus attempting to abbreviate the cæcum in man, and to bring in a race with an unnecessary portion of the anatomy cast off; but the fact remains that the appendix is a bowel attachment atrophied, functionless, and rudimentary, with a blood-supply that can easily be interfered with and which at best is barely able to supply sufficient nutriment to keep the part alive.

All other bowels, too, are open at both ends, with an unobstructed fecal current. Peristalsis is the general provision of nature to secure the uniform ongoing of bowel contents, and their final ejection from the system. Anti-peristalsis is an exceptional procedure, and comes always as a protest against existing conditions. Either there has been a surfeit of ingestion,—an overloading of capacity,—or things inimical to the welfare of the body, such as poisons, etc., have been taken, which nature essays to eject at the initial opening; or there is an obstruction somewhere in the intestinal tract, making an insurmountable obstacle which the wormlike instinct of the bowel can neither go through nor go around, but must reverse its course. Such obstacles are found in bowel closure from twist, knot, invagination, or in paresis of the intestinal nerves from bowel fixation due to inflammatory adhesion or other se-

quel of inflammation, even to local death, somewhere along the intestinal way. In either case it occasions paralysis of vermicular motion beyond a given point, and the reflux of the intestinal current seen in vomiting.

Only a moment's reflection is necessary to convince one that the appendix is but a very inadequate bowel. It is open at but one end, the other being hermetically sealed; it has ingress, but no egress, except again at its mouth; it has vermicular motion, this worm-like appendix, and attempts to crawl both ways at the same time in a very circumscribed and impeded canal. I mean that the contents are compelled to traverse the appendix forward and back at the same time,—or that this is the conjoint effort of peristalsis and anti-peristalsis present also in this bowel, and that this is a thing difficult and hazardous to the utmost degree. To make matters worse, at its cæcal opening, the proximal end, it has a reduplication of its mucous membrane forming a valve,—the valve of Gerlach, which allows a certain ingress, but is a great embarrassment to any egress—thus making a mouse trap of such early invention as to deserve the original first patent. Is it any wonder that this rudimentary bowel, thus hampered, has a difficult performance on hand; that fecal accumulation—occasionally, but very rarely, containing a seed or button—becomes imprisoned in this lagoon or intestinal bayou, and that, with the help of the ever-present bacilli coli communis, it remains there to fester and to rot everything surrounding it? If this imprisonment be located fortunately at the mouth or cæcal end, a cathartic or an oil lubrication may open the valve of Gerlach and permit the ejection of the appendix contents; but if erratic circular fibers at the middle or outer third have finally closed around the offending appendolith, no such good fortune is to be realized, and the bacilli go on to make perforation of the appendix wall, or to produce gangrene in the entire region of their habitation.

If the appendix could be effectually acted upon by an emetic whenever occasion demanded, if it were a bowel open at both ends, so that a cathartic also could operate, the sequel of appendicitis would not confront us. But with pent-up steracaceous vomit within its tortuous and poorly fortified canal,

appendicitis is an unavoidable sequence, and modification *per orem* in too many instances a barren ideality. These stubborn facts are not weakened by the admission that nature, whenever possible, averts the logical consequences of such an embarrassment by any evolution in the life processes that can be effected. For, in all such instances, it is but a temporary expedient, an effort to make the best of a bad situation, and the result is ideal in no sense of the word. In the very nature of things no appendix can be a perfect specimen of anatomy or be capable of exercising a creditable physiological function. It has had from the very beginning, and always, an infantile existence, readily embarrassed and easily overpowered. A limping cripple from the start, it has never had honorable mention in the race of life. At its best it is continually on the verge of disease, and would never pass an examination for life insurance. Its recuperative power is so poor that, whenever once actually diseased, it cannot regain life vigor, but is ever thereafter a chronic invalid, subject to frequent repetitions of its habitual ailment, and ever ready to present without a moment's warning an evolution in death process well-nigh insurmountable by the promptest and most favorably circumstanced surgical intervention. So well is this becoming an understood fact that an intelligent patient, even of that order, dare not go beyond the easy command of a competent surgeon and a suitable hospital; dare not go, for instance, for a couple of days to the woods or the trout streams on a hunting or fishing expedition, for fear that he may be caught short—may have a recurrence at McBurney's point, and be unable to get back to a life-saving station. Even in the "recovered" cases, particularly after pus has been generated, what is the unalluring prospect? Days, weeks, and months of thermal-curve experiences; rigors and sweats and all that is implied by an uncertain abscess evolution; an anxiety lest the "pointing" may be made toward the peritoneum, intestine, ureter, bladder, or uterus rather than the abdominal integument, or that the pus may burrow beneath Poupart's ligament on into the lumbar muscles before the abscess "breaks" or is reached by a beneficent lance. Nature's surgery cannot be ideal; for it is followed by fistulæ, cicatrices, and long-time invalidism, and forces its subjects to

run the gantlet of manifold perils all along the way. To be sure, such a poor sufferer is thankful eventually to escape with his life, may be in his simplicity even grateful to his medical adviser for "thus pulling him through," but how much more thankful would he be to God if he could but realize his miraculous escape from appendix perforation, diffuse suppurative peritonitis, fulminant experiences of whatever variety, and the quick taking-off!

So many things hitherto hid in this matter have come to light that no one abreast of knowledge can hesitate to choose the better way for the treatment of appendicitis. The day for the employment of shilly-shally methods in treating the diseased appendix has passed forever. It is no longer a study of percentages for or against medicinal and expectant methods, for all of these must go to their places in the rear—to be called for only during the brief interval occurring at the onset, before the confirmation of the diagnosis or the proof of their inability to bring speedy relief has been established; or in those unfortunate cases where consent is withheld or when, for other unavoidable reasons, the surgical remedy cannot be employed. Engrave it upon the minds of all men that surgical intervention is the logical treatment for appendicitis, and that it should be employed in all cases at the earliest possible moment; that all other procedures are loaded with peril to the utmost extent, and that the only contra-indication for its use is the inability to command the services of a competent surgeon and the advantages of proper hospital facilities. With a qualified surgeon, a good environment, and an appendix before perforation or pus formation, the percentage of loss in appendectomy should be nil. This is the ideal procedure, and all should strive for its attainment. The more complicated the case is allowed to become before extirpation is made, the more hazardous of course the situation will be, but the more necessary still will be the surgical procedure. With the field of the operator strewn with sepsis, the burdens are vastly heavier; but the chances are yet markedly better under the surgical, than under the expectant method. Once stop the pernicious quibble about the relative merit of methods, and plant the fact firmly in the minds of doctors and

people alike, that there is but one course to be pursued, and that that is the surgical, when the appendix is in trouble, and that this course must be entered upon the instant the disease is proclaimed or the diagnosis of the abdominal condition is in doubt, and the day of death certificates occasioned by appendicitis and so often miscalled typhlitis, peritonitis, bowel obstruction, acute bilious attack, typhoid fever, etc., will have passed.

This is no figment of the imagination or mere conjecture of an ideal attainment, but the recitation of the conclusion arrived at by skilled operators the world over. Normal appendectomy, or any near approach thereto, is loaded with scarcely more gravity than a mere exploratory incision of the abdominal wall, which has been proven by all operators to be a procedure practically devoid of danger. Even with promiscuous cases, taken as they come,—excluding only the moribund or those utterly hopeless at the time of the operation,—the percentage of loss has been reduced to the minimum, while the saving of time to the invalid by thus shortening the duration of his illness and the cancellation of all dates of its recurrence is of incalculable value and attainable by no other method. The removal of the suspended sentence hanging over eighty per cent. of those who have ever had appendicitis—the everlasting fear of it, and the certainty that sooner or later it will recur with unknown virulence—is a boon greater than I can here indicate.

Well-informed people are always ready to do the thing necessary for their greatest safety, whether it be to flee from a burning building, to forsake a sinking ship, or to free themselves from a menacing, death-laden appendix. In either instance it is a question only of when and how to do it. In the latter dilemma it has resolved itself into the question: "When to operate."

From what I have said above it follows that the time to operate is the earliest feasible moment after the diagnosis has been made, or whenever doubts arise as to the particular morbid evolution that is going on in the abdominal cavity. And this latter specification is as important as the former, inasmuch as many cases have such an obscure origin and present such confusing data as to render accurate and early diagnosis an

impossibility. A diagnosis that is cleared up only at an autopsy can reflect no luster upon the diagnostician or the profession he represents. Since no man, however skillful, can predetermine exactly what is going on in some abdominal cavities without making an exploratory incision, it is settled that in all cases simulating appendicitis and concerning the exact nature of which doctors fail to agree, an exploratory operation should be immediately entered upon, in order first to clarify the diagnosis, and second, to remove the appendix, if that be the indication. But how often do we find tubal or ovarian complications, such as salpingitis, cysts with twisted pedicles or developments incident to extra-uterine gestation; or characteristic bowel obstructions due to such accidents as bowel twisting, knotting, intussusception; or closures incident to adhesive bands across the intestines; or intestinal cancer; or gall-bladder complications, such as elongated gall cysts with calculi; or abscess formations following ruptured or ulcerated gall bladder due to biliary calculi; or perforation of bowel wall from obscure typhoid conditions; or even of the appendix itself without any evidence of inflammation?

Imagine the success of expectant methods in the presence of such embarrassments so often encountered!

A few illustrations will bring out my meaning:

Case I.—A woman, aged fifty, had suffered repeated attacks of appendicitis, so-called, which had hitherto yielded to cathartics and the oil treatment. Now, however, in the third day they had failed to bring relief, and her condition was growing critical. Summoned in consultation, I found extreme tympanites, great tenderness over McBurney's point, but utter inability to define exactly what was going on, though the history of her previous attacks made the diagnosis of appendicitis acceptable. Immediate opening of the abdominal cavity, however, disclosed an ovarian cyst as large as a cocoanut in a gangrenous condition, due to twisted pedicle; appendix vermiformis normal. Removal only of the former led to an uneventful recovery.

Case II.—A young married woman who had never been ill had been suffering for thirty-six hours with supposed appendicitis. There had been the usual sudden manifestation

of pain at McBurney's, with tenderness and muscular rigidity and much vomiting. She had already had twelve bowel passages from oil cathartic, and her physician an hour before had hoped she was slightly improved. Upon reflection, however, he was uneasy, and asked me to see her with him. It was 11 p. m. when we reached her. She gave every evidence of diffuse peritonitis, with all the indications at the appendix region so well recognized as due to inflammation. I advised immediate operation, took her to the hospital, and an hour later entered her abdominal cavity. Imagine our surprise at finding the intestinal loops swimming in fresh red blood, which I still found flowing from the right fallopian tube, ruptured by an ectopic gestation about six weeks along. The appendix was normal. She had had no symptoms of pregnancy; menses wholly normal, and she had just completed her last period before the present illness. Removal of ovary and tube on that side; also the appendix, to be sure, and recovery followed in ideal fashion.

Case III.—A girl, five years old, gave a history of repeated attacks of biliousness accompanied by abdominal pain and diarrhea; was taken at 2 a. m. in the usual way. I was called six hours later, and found conditions negative, except vomiting, pain in sigmoid region, and diarrhea. There was no pain at the appendix, nor was there fever or quickened pulse. Even with her mother's assurance that it was nothing but her usual bilious attack, I was not satisfied with the situation, and called again in the evening. No change was found, except more tenderness on the left side of the abdomen, with quicker pulse; vomiting and diarrhea still present; no tympanites. I discussed the probability of appendicitis, but confessed uncertainty. The following morning, conditions unchanged, I diagnosed appendicitis, and urged immediate operation. This said, the parents were in consternation, and having but recently removed to Indianapolis, insisted upon having their old physician from Illinois see her before consenting. He arrived twelve hours later. Said there was nothing new in her attack; that he did not agree with appendicitis, and that expectant treatment would be wholly sufficient. After remaining for four hours he left, believing her better. Six hours later I was

again summoned, and gave the surgical ultimatum. Other counsel came,—a surgeon of national reputation, but a “regular,”—who admitted appendicitis, but said gastro-enteritis and peritonitis were the leaders in her procession, and that if it were his own child he would wait another twenty-four hours. It was seventy-two hours therefore before I was permitted to make exploration, and to find general suppurative peritonitis due to sepsis from a clear-cut appendix perforation, and the child already moribund.

Case IV.—Sergeant Meredith, a patient in the Camp Mount military hospital, had been a sufferer for years from chronic diarrhea and indigestion; had had recurrent attacks of bowel obstruction, with sudden rise of temperature and general abdominal tenderness, relieved by cathartics. When admitted to the hospital at the time in question he had been a victim for three days to profuse diarrhea, followed by two days with bowel stoppage. The usual methods to produce bowel action had failed; the abdomen was greatly distended, and greater sensitiveness was shown at McBurny's point. Emergency was declared, and laparotomy agreed upon at midnight. Hasty preparations were made. Upon entering the abdominal cavity I found the intestinal loops of the ileum almost gangrenous. A Meckel's diverticulum eight inches in length and situated ten inches from the ileo-cæcal valve had been thrown over both the ileum and the cæcum, and had become attached at its end to the parietal wall in such a way as to make a small foramen between the Meckel's, the ileum, and the cæcum. Through the orifice thus made loops of intestines had slipped, the diverticulum had tightened by adhesive process, and strangulation on a large scale was the result. Not only were the loops of the ileum black as a thundercloud, but the cæcum and appendix were black also. Fortunately the surgical remedy was not too late. I was gratified to see reddening of the tissues follow the liberation of the diverticulum. I removed not only the diverticulum, but the appendix, and had an uneventful recovery.

It will not be necessary to multiply instances of embarrassed diagnosis or recite cases of the ideal order, so familiar to all surgeons, to substantiate the conclusions before stated.

Richardson thus concluded a recent very conservative paper on the treatment of appendicitis:

" 1. Not every case of appendicitis should be operated immediately.

" 2. After the first mild attack, try diet and salines.

" 3. After the first severe attack, remove the appendix.

" 4. After two or more even mild attacks, operate.

" 5. In an acute attack do not give opium or morphine, but operate: (a) if a chill manifests itself; (b) if pain be severe enough to require morphine; (c) if the pulse be very, small, or rapid, or irregular; (d) if there be persistent vomiting; (e) if there be persistent rigidity of the abdominal muscles; (f) if an abscess can be felt; (g) if the general conditions make it imperative; (h) if in doubt."

This summary covers the ground, and means, in a word, if you have a troubled appendix vermiformis extirpate it in the interval if you can, or while the attack is on if you must.



GYNECO-THERAPEUTICS.*

BY ALFRED E. HAWKES, M. D.

I wish to refer to such affections of the uterus, fallopian tubes, ovaries, bladder, and urethra as are met with in an ordinary outdoor clinique like my own, where notes on some 2600 cases reveal what I have done and what I have left undone in the class of disorders under consideration.

Few will question the interest attaching to the different forms of tubal disease, but at once three sources of difficulty present themselves.

First. The best books give but a scanty subjective symptomatology, and Lawson Tait says that a classification of these cysts, based even upon the character of the fluid which they contain, is thoroughly impracticable.

Second. Although I first heard the term pyosalpinx from the lips of Dr. Drysdale, the fallopian tubes are not referred to in the chapter of the "Cypher Repertory" devoted to the female genitals. But the repertory is very valuable herein, notwithstanding.

* Read at the Homeopathic Congress, Liverpool, September 19, 1901.

In "Allen's Repertory" one medicine is said to produce a symptom not up to the present found in the text.

Third. On turning to Dr. Hughes' "Repertory to the Cyclopædia of Drug Pathogenesis," we find reference to the tubes under arsenicum and merc. cor. only, as far as I am aware. In the case of the former the record is, "at p. m. ovaries were found dark-colored and lining membrane of uterus and fallopian tubes vascular." And in the pathogenesis of merc. cor. we find reference to congestion of the uterus and tubes on p. m. examination; and further we note as having been discovered p. m., "Left fallopian tube was congested and contained pus."

For a long time I have associated the term burning, so often used by patients, with tubal disease, and on turning long ago to the "Cypher Repertory" I found "burning in right ovary" under eupion. The symptom is not referred to in Allen's index, and the drug itself is excluded from the handbook and the primer. I have little doubt that its close relationship to creosote warrants this omission. A careful comparison of these two substances might more than reward the student of materia medica.

I am quite prepared to admit that to pick out a symptom from the "Cypher Repertory," without tracing it to its source, and to synthetically arrange it with the symptom of gushing leucorrhœa also attributed to sepia, would have been unwarrantable if a more fruitful pathogenesis had been available. Moreover, all observers do not admit with Dr. More Madden, that the sudden escape of sanguineous, purulent, or serous fluid from the uterus takes place in these cases.

Pozzi, quoted by Wood, says that the symptom has been much exaggerated, but he admits that it is sometimes possible to force the contents of a distended tube through the uterus and out per vaginam by manual pressure.

It is not disputed, I believe, that the tubal contents escape into the peritoneal cavity and set up recurring attacks of more or less severe peritonitis, but even under such circumstances I have known a distinguished gynecologist enjoin rest and treatment in the case of a young married woman.

No words of mine will influence the experienced specialist

who is reluctant to leave a diagnosed pyosalpinx, with all its potentialities of evil, in situ, when he has obtained the patient's consent for its removal; but the general practitioner, with the consent of his consultant, especially if the patient prefers such a course, may be encouraged to try rest and douching, while administering arsen., merc. cor., or eupion with such other medicines as may be needed. He will find merc. cor. of the greatest service whether the peritoneal condition be due to salpingitis, cellulitis, or inoperable malignant disease.

It is quite unnecessary for me to point out the desirability of a careful examination, followed by rest, hot douches, and good food, in these cases of actual salpingitis, accompanied by constant watchfulness for the conditions calling for laparotomy.

The remark in "Treves' Surgery," that "the gonococcus will not survive in the peritoneal cavity," and that peritonitis due to pyo-salpinx is probably the outcome of a mixed infection, will not have escaped your notice.

As I have remarked, the recurring slight attacks of peritonitis, due to escape of fluid from the tube into the peritoneal cavity, may be safely left to such medicines as one would use in slight attacks of appendicitis, but I must add that more acute attacks demand the oversight of a surgeon, for the general practitioner who finds at the p. m. that he has temporized with an appendicitis or a pyo-salpinx is not to be envied. With the addition to merc. cor. and arsen., of lachesis, which no less an authority than Dr. Biggar praises in this condition, I pass to a suggestion hinted at in the *précis* of my paper.

In this country the proving of medicine seems to have come to a standstill, but I know that many of our men are constantly taking notes, few of which ever see the light. Suppose that, guided by not very thorough pathogenesis, one or two men should find good clinical results follow the use of a certain drug, why should they not publish the cases as fully as if they were recording actual provings? The actual clinical value of such medicines as *lilium*, *apis*, and *palladium* might thus be more minutely differentiated, and there are, I think, not many of us but would welcome such additions to our resources, provided always—at any rate speaking for myself—a patho-

genetic basis formed the groundwork of the selection. For example, long ago I was directed by the "Cypher Repertory" to eupion, derived by distilling wood-tar. The volatile oil separates into a heavier oil, creosote, and a lighter oil, eupion.

Burning in the right ovary ("Cypher Repertory") and gushing leucorrhœa (Allen) were not much to build upon, but there is no remedy I use so often in chronic tubal disease, nor is there one with which I am so well satisfied. I do not find the gushing discharge under creosote, and I am of opinion that in this one regard eupion and creosote differ. I must now pass from this part of my paper, but before doing so, I would like to ask you who have not tried this remedy to test it clinically.

Dr. Oscar Hansen refers to eupion as a remedy for tubercle, leucorrhœa, and as a good remedy for uterine flexions.

Until quite recently I have trusted mainly to the "Cypher Repertory" in dealing with cases manifesting ovarian symptoms.

It would be an interesting task to critically examine—were one competent—the lists of ovarian medicines given respectively by Drs. Drysdale and Stokes in the "Cypher Repertory," and by Dr. Hughes in his more recent "Repertory to the Cyclopædia."

Nothing could better illustrate the searching methods of Dr. Hughes, to whom we are so much indebted, than a glance at the two lists. To say with some iteration that eupion is missing is to say little, but while I am reminding those who work in this region that apis is also wanting, I shall, I venture to say, be causing some surprise in the minds of others who have less occasion for reference to this chapter.

You will not have forgotten Dr. Dyce Brown's study of apis, nor Dr. Pope's paper on the same drug.

In his "Pharmacodynamics" Dr. Hughes remarks that "few medicines cause so many ovarian symptoms."

I find no reference to the ovary in the text of the "Cyclopædia" under apis, save on page 315—8b, and there the prover is spoken of as having ovarian tumors. The fruitful symptom "great pain and tenderness in enlarged ovaries" one finds on page 86 of the "Cypher Repertory" has no place in the

"Cyclopædia," and no wonder when we turn to S. 528 in "Allen's Encyclopædia."

Then are the cases of tender ovary which have benefited so much under the administration of apis to be forgotten even as clinical entities?

I call to mind three cases, each, as it happens, under the care of colleagues who asked me to see them. In two the tender, enlarged ovary could be easily palpated, and under apis 3 and careful management the most signal benefit accrued. These two cases occurred in young unmarried women, but the symptoms were so urgent that an examination was necessary.

A third instance occurred in the case of a married woman, whose large, tender, prolapsed ovary was greatly relieved by apis, although hamamelis helped the coexisting metrorrhagia better than apis, notwithstanding S. 522 (Allen).

The obstetricians present may not have noticed under poisonings (4) the convulsive capabilities of apis, but the treatment of puerperal convulsions and the prevention of abortion, although apis is to be thought of, are not within the scope of this paper.

What, then, must be our attitude towards this valuable medicine? Some of us, led by the will-o'-the-wisp of a false pathogenesis, will continue to use it in disease. The stickler for purity, in its pathogenetic sense, will perhaps use it less—I use the epithet as a term of respect—but we shall all, I trust, some day find that, when properly proved, our remedy will commend itself afresh, and that all of our way of thinking, and perhaps some others, will recognize in it a valuable help.

I am on surer ground when I refer you to bryonia, the very characteristic symptom of which, "in region of right ovary severe pain, as if part were torn or wrenched, extending to the thigh," is given with much fullness in both repertories.

We miss the graphites from the "Cyclopædia Repertory," but we do not forget Dr. Dudgeon's case, and I am giving the drug just now in a similar condition of indurated and tender ovary.

Although warned against looking upon any drug as a favorite (by Hahnemann himself, I believe,) I wish to point out the great value of *lilium tigrinum*. This medicine occupies

a prominent place in both repertories, and nothing could be more praiseworthy than the courage manifested by lady provers, graduates or medical students, who subjected themselves to its influence.

That Dr. Dunham reported one of these provings still further enhances the value of these observations.

We are not concerned at present with the undoubted cases of anteversion produced by the drug, but few can fully realize how well established that occurrence was without reading the "Cyclopædia" in detail. Tenderness when pressure was applied in the ovarian region; aching and burning like coals of fire; burning across the hypogastrium; these are symptoms that have been most helpful. The extension of pain down the thigh reminds one of bryonia and crocus. The pain across from one ovary to the other of apis. The sacral pain is simulated by that of berberis, if we can accept the statement on page 577 of the "Cyclopædia." It may not be out of place to refer to the classic symptom of sepia, viz., prolapsus, and to compare lilium herein. The powder of helonias to antidote lilium, when the dragging became intolerable in the case of the provers, is not to be lost sight of.

I cannot call to mind where Dr. A. C. Clifton directed attention to morning diarrhea in connection with pelvic trouble, but the symptom on page 138 of the "Cyclopædia," line 10, "aggravation at night and diarrhea in morning, then despondency and mental depression," should assist us if apis, and I would add kali bichrom., fail.

I may be overstating the case for lilium; you may share the feeling expressed by Dr. Hughes, which is one of disappointment with the drug as a remedy. I am sure you will set me right, but I hope you will not deprive me of my confidence in this medicine.

As to naja,—for neither crotalus nor lachesis is mentioned,—whose symptom "a violent crampy pain in the region of the left ovary" is given with much accuracy in both repertories, I know little clinically in the sphere under consideration. It is ushered into your notice, not for the first time I am sure, by no less weighty attendants than Drs. Holcombe and Ludlam, one of whom acts as sponser for its pathogenesis, and the

other for its use as a remedy for ovarialgia with cardiac concomitants. Ought I to mention palladium, one of the small-type medicines of the "Cyclopædia"? It has no ovarian pathogenesis, and is consequently not mentioned in the "Repertory" in connection with this kind of disorder. Dr. Skinner drew my attention to it, with much subsequent profit to an in-patient, whose painful right ovary was more than relieved by its use. It may be compared with bryonia and lilium as to the pains—pathogenetic in their case—extending down the thigh. Belladonna is not referred to in Dr. Hughes' "Repertory," but the "Cypher" gives "periodical pain in left ovary," and you are not unfamiliar with Dr. Ludlam's indications for atropine 3 in his lectures, "incidental paroxysms of acute pain in either ovary."

Platinum does not appear in Dr. Hughes' "Repertory," but it does in the "Cypher"; but fancy our revered friends admitting a symptom following one dose of the 200th dilution! It would seem that it must go as an ovarian medicine, but I am sure you will retain it in certain forms of metrorrhagia, whether your patient be a haughty dame or a humble seeker after health.

This is hardly the occasion on which to mention the ovarian symptoms of hysteria referred to by Bastian, who in turn dwells upon Charcot's views. I have found zinc val., as recommended by Ludlam on page 168 of his first edition, of great use.

I have spent so much time, both yours and mine, over other portions of this paper, that I can only briefly refer to the subject of fibroids. I am putting one or two problems before the gynecologists present, in a clinical form, and I hope to return to the subject soon. I am showing them a patient, Mrs. W., æt. sixty-six, who ceased to menstruate at forty-eight. She had free hemorrhage for six years. She bore a child when twenty-seven, but not since. Being the subject of fibroid, she needed crocus and china for a long time, but she passed well through the ordeal, much as one gathers that patients should do if near the menopause.

I am also drawing their attention to a case where there has been no hemorrhage; much the reverse, where the nervous

symptoms associated with exophthalmic goiter coexist, and where lachesis has helped the great tightness complained of from the size of the tumor. She declined all suggestions as to operative interference.

I am also asking them to see a case associated with hemorrhage, where crocus and other remedies have been useful, but where, the patient being only forty, the question of operation must be seriously considered.

As to the endometritis associated with fibroids, my experience of curetting is too limited for me to pronounce upon that expedient, but I think well of it. Crocus serves me better than any other hemostatic. I have recently turned a symptom of hyos. to good account in the case of a woman who complained of a feeling as if something were moving in her inside. She had no hemorrhage, but the association of this particular concomitant with crocus has never been helpful in my experience. I wish we could dismiss fibroids thus summarily in practice, but I have no alternative just now.

In an inquiry as to the action of the various drugs on the uterus, the different forms of leucorrhœa fall to be considered. The subject of metritis generally would occupy too much time, and we may dismiss the subject by referring to Sir James Simpson's classical term "subinvolution."

Dr. Barbour, in the "System of Gynæcology," refers to Sir James' views and he there says that "the pathological facts, so far as we know them, are that the lesion consists in an increased formation of connective tissue in the uterus, and that the most favorable circumstances for its development occur during the puerperium." Can we do more than those who empty the uterus—enjoin rest, use douches, and administer ergot?

A reference to the "Repertory of the Cyclopædia" gives a good idea of the extent of our resources here. Acon., aloë, canth., cham., coccul., ignat., lil., nux, plat., puls., rhus, ruta, sab., sec., and vib. demand a much closer study than can be attempted here.

We have now to direct our attention to the endometrium and the cervix, and the type of disorder we have in view is chronic

endometritis. "Here," says Barbour, "we have the symptom of chronic metritis, with, in addition, increased discharge either of blood at the menstrual period, or of leucorrhœa in the intervals." We have to bear in mind that the "normal secretion from the cervical canal is clear and viscid, resembling unboiled white of egg, and that it is alkaline in reaction" (Barbour). It may be purulent or contain blood.

The secretion from the body of the uterus is less viscid, often milky, but may be muco-purulent.

Taking the two repertories, as before, I may arrange the medicines in two groups, as follows:

(a) Leucorrhœal discharge, probably from the body of the uterus. (b) From the cervix.

Body.—Aurum, chinin., copaib., fer., fer. iod., lil., mag., merc., murex, sab., sil.

Cervix.—Am. mur., arsen., bov., kali-bich., mezer.

It is impossible now to mention even all the leucorrhœa medicines. I proceed to refer to the pathogenesis of the following:

Aurum met. produced redness and swelling of the labia; heat, smarting, and pricking at vulva and in vagina; white thick leucorrhœa; delayed period.

Aurum mur., redness and swelling of labia, continual oozing at vulva, yellow and clear leucorrhœa. Further, under aur. mur. we note that the leucorrhœa, after ceasing, returned again and lasted four days; it was very acrid, made the thighs sore, and this was accompanied by itching in the genitals. It would be difficult in a few words to give a better description of certain forms of vulvitis. It will be interesting to ascertain if any have added this indication to the drug, which has been used so much in indurated conditions of the uterus.

Passing over chininum,—leucorrhœa becoming sanguineous, —with which murex may be compared, we come to copaiba, with its pressure on the uterus, as if prolapse would occur, accompanied by milky, acrid leucorrhœa, excoriating the vulva.

Ferrum. The Hahnemannian symptom "like milky water, acrid," is exactly reproduced in the "Cyclopædia Repertory."

The next symptom indexed indicates cervical involvement. Ferr. iod. also would seem to act on the cervix especially, and is to be thought of where stringy, starchy leucorrhœa occurs.

Lilium. Perhaps enough has been said about this drug, but its power to produce acrid brown staining, as well as light yellow discharge, will not be lost sight of by those who seek to test its power.

Magnes. The use of this drug is hardly so much a matter of pathogenesis as predilection, but "*Ng.*" means more to some than others; of course I speak of its uterine action.

Merc. Once again the indications for the use of this substance are given in a word or two. "Greenish, acrid, purulent," in Dr. Hughes' "*Repertory*," and for the purposes of rapid prescribing the "*Repertory*" here tells us nearly as much as the text.

Murex comes next. I have an increasing regard for this drug, and the wording of the "*Repertory*"—"an existing leucorrhœa becomes sanguineous"—gives a clear view of its pathogenesis herein. The symptoms of *sabina* in this group are relegated to the vagina, but the character of the discharge would suggest a uterine origin. To those who favor the drug the indication milky leucorrhœa, with itching, will help.

Silica. The characteristics of this remedy, as given in the "*Repertory*," are scanty enough, as they are in the text, but I would commend to you its use and praise its capabilities. It is helpful, in the usual dilution, in that form of leucorrhœa met in women long past the menopause. It is characterized by a thin, watery, irritating discharge. It was of signal service in the cases of two old ladies, who were much inconvenienced by this disagreeable condition. I am unable to say if these cases were instances of the saprophytic endometritis, due to a combination of cocci and bacilli, as described by Winckel, but, as far as I remember, *silicea* was the only drug which influenced them.

Ammon. mur. The reference in the "*Cyclopædia Repertory*" is to the chronic diseases, and in a word the character of the leucorrhœa is given without the concomitant condition, viz., "after previous pinching round the navel, and after every discharge of urine." I have no clinical verifications, but the drug shall have more respect paid to it by me.

We are directed by the "*Materia Medica Pura*" to *arsen.*, symptom 490, where a more or less profound endometritis was

obviously produced, and on page 503, vol. iv., of the "Cyclopædia," the record of a viscid leucorrhœa produced in a young woman of twenty-two, points to its action on the cervix. I need hardly say how frequently arsen. is required in cases of this description. Dr. Barbour informs us that Sir James Simpson recommended arsen., believing that it acted beneficially on the cervix as it does on skin eruptions.

We thus see that the clinical use to which it is put by both schools is in full accord with its pathogenetic effects.

Bovista. One of my early preceptors taught me to use bovista, but not in the class of cases under consideration. The "Repertory" gives almost the entire symptom.

Kali bichrom. "Yellow, tenacious, acrid," gives a good idea of the words of the text, but the concomitant pain and weakness across the small of the back, and dull, heavy pains in the hypogastrium are not indicated. You will at once compare this symptom with that of ferrum iod. Strange to say, these symptoms of kali bich. do not appear in the "Cypher Repertory," hitherto to my discomfort, for everyone seemed to give the indication for the drug herein, except the observer who knew most about it.

Mezereum. Albuminous leucorrhœa. This is a Hahnemannian symptom, but I have not used this drug in this condition.

In thus running over the most obvious medicines acting on the lining membrane of the body, and the cervix of the uterus, I trust I have done some good. I have, at least, stored up material for my own use in the future, and if clinical success follows its employment, my colleagues shall be the first to hear of it.

I must ask my friends who trust exclusively to medicines, to bear in mind, as doubtless they already do, that their method is in constant competition with the curette, which will sometimes accomplish in a few seconds, and even without an anæsthetic, more than can be done by months of symptomatic treatment. Shall we not resolve, by working more and more at the *materia medica*, to do all that in us lies to remove this opprobrium, if it be one?

I am compelled to curtail my remarks on chronic cervical catarrh with its sympathetic pain in the sacral region. You

are all familiar with "the red granular surface round the os externum, which bleeds easily." The pathological evolution of this disorder is one of the most interesting that can come under our notice.

It is no longer spoken of as an ulceration, and its treatment has been modified accordingly. At times the diseased glands have to be destroyed "by caustics, the curette, or the knife." But change of air, a careful dietary, rest, and baths play an important part. The symptomatic treatment has to be directed towards the amelioration of the cervical catarrh. The increased secreting surface, granular in structure, leads to increase of leucorrhœal discharge. How often this is associated with laceration, manipulation with the tenacula teaches. Speaking for myself, the application of glycerin, carbolized or calendulated, and the use of the douche, to which occasionally a little tincture of iodine is added, suffice. I must refer you to page A. 85 in the "Cypher," where you are directed to alumen, canth., sepiæ, hydrocotyle, and vespa. I find that we are indebted to Dr. Edward Blake for the medicine last named in this connection.

As to hydrocotyle; I used it long ago for the pains of cervical cancer, where the morphia, which we have no right to withhold, when we cannot find a substitute, was often hereby dispensed with.

The symptom "redness of cervix of uterus disappearing on leaving off medicine, returning on its resumption," is rendering me much aid. No one here would continue giving it until he had satisfied himself, as far as he could, that he was not treating a case of cancer suitable for operation; a not unlikely thing to happen, at least, in the case of some of us.

Idiopathic metrorrhagia. From time to time cases of unusually prolonged loss, in connection with the onset of the catamenial flux, come under our notice. I have reported one such case where a young girl, aged sixteen, was successfully treated with ergot. She also at the same time suffered from purpura, which also yielded to the same medicinal influence. Another case in a very young girl caused me a good deal of anxiety, and I briefly report it. Other members of the family suffered from metrorrhagia. At the age of thirteen the cata-

menia commenced. At first, the function was normal, but on the second occasion it was accompanied by pulmonary catarrh, and was excessive in duration and quantity, lasting a full week. The next time it was the same, remedies having no effect.

Thus it continued for some months, till, on one occasion, the patient was under treatment from July 11th until late in September. There was hardly any cessation, but an exacerbation, so to speak, occurred as a new period became due. The case was so distressing that I got an expert friend to examine her under chloroform, with, however, a negative result. No medicine was of the slightest use, and I used in addition to millefol., sec., sab., ham., crocus, a low trituration of gallic acid. At this time a lady graduate from the other side was seeing a little of my hospital work, and she suggested trillium. I at once saw the reasonableness of the suggestion, and administered it, with complete and lasting success. The first decimal, and first centesimal dilutions seemed to act well. In the little emergency, ordinary works of reference did not help me; the best help came from "Ludlam's Lectures," but I owe the successful issue to my American colleague, and to a remedy which, while it remains unproved in the healthy, can find no place in the "Cyclopædia."

Dysmenorrhea resolves itself into the pathogenesis of viburnum op., as far as medicines and I are concerned. I have clinical references, too incomplete for presentation, and this part of the précis must be deleted sine die.

Viburnum has been my sheet anchor, not less homeopathic because in one case there were adhesions to a marked extent. The pain was quite cured.

Referring to the urethra, I may say that I do not remember ever having influenced the condition accompanying urethral caruncle with medicine; still less have I ever removed one of these growths by means of a drug administered internally, but I have never given eucalyptus globules. There is, however, a condition of the meatus, which may be described as an ectropion, which causes much discomfort, in the treatment of which I commend capsicum to your notice. The urethral symptoms of capsicum are well marked. There is often a super-added irritation round about the meatus, and here I find it

necessary to use calendulated boracic acid as a dry dust, such as doubtless some of you use in certain forms of otorrhœa. I owe the hint, as regards the ear, to the N. A. J. H. I cannot say that capsicum acts quite as well on the meatus urinaris as it does on the mastoid cells. We owe both uses to the "*Materia Medica Pura*."

Skene describes this condition, and he most carefully differentiates inflammation of the glands of the female urethra from caruncle, or papilloma of the meatus. He speaks of catarrhal inflammation as well as gonorrheal. His description of "eversion of the lower portion of the urethra" is well worth reading. He gives an excellent plate showing the surrounding inflammation due to discharge from the urethral glands.

I need hardly remind anyone of the frequency with which, in a gynecological clinique, the practitioner meets with certain forms of dysuria. The causes need not be dwelt upon, but apis, canth., copaiba, eupator., purp., mer. cor., and ruta are constantly required. As to apis, the urinary symptoms are well known. Perhaps, burning in the urethra, before and after, is characteristic, but I have found apis not less useful in that form of spasm of the bladder, so well indicated in S. 125, "*Mat. Med. Pura*," in the proving of ruta: "Pressure in the region of the neck of the bladder, like a painful closure of it, shortly after urinating." Of course, I also use ruta for this condition, when the above quoted symptom is present, but apis is not to be forgotten if ruta should not act. To recapitulate: painful closure of the neck of the bladder region, after urination—pathogenetic and curative—ruta; curative and suggestively pathogenetic—apis.

Copaiba is useful, and can hardly be differentiated from canth. Urging to urinate after urination is a marked characteristic of this drug also. Canth. need only be mentioned. Cutting, smarting pain, with scanty micturition, may be said to be characteristic.

Eupatorium purp. is also valuable, but, here again, the symptoms are so similar to those produced by the drugs already mentioned, that only detailed clinical cases can determine the precise circumstances under which each is to be used.

Merc. cor. is not to be forgotten, and in one case it was not less useful because albuminuria co-existed with the bladder irritation. Other remedies may occur to you, such as bell., ferr., etc., but these have generally sufficed—and this paper is rather an expression of clinical experience, than of theoretical suggestion,—and you will be all the while asking yourselves, wherein what I have been saying differs from the dicta of Dr. Hughes and others, given to us long ago.

Current Comment.

E. T. Brady, M. D.:

Mrs. H., age thirty-eight; married two years. First labor, very fleshy, history good. Called to attend in labor, I found the fetal head presenting at the vulva, and decided bulging of the perineum. Pains were frequent and severe. Expecting immediate completion of labor, I waited half an hour, when —the pains ceasing and there being no advance—I applied short forceps, using quite powerful traction, without result. Lubricating my hand and introducing it beside the head, I found the child's feet on its breast, just above the chin. Following up the legs, I found that the child was doubled over a *transverse band, obstructing labor* and reaching entirely across the vagina. The band was dense, fibrous, almost tendinous. The whole child had been expelled from the uterus. The head and trunk were on the posterior side of the band; feet and legs were on the anterior side. Sawing off one end of the obstructing band with my finger nail, the child was easily delivered. I then pulled down the band and severed the other end. The band was attached to each side of the vaginal wall one-half inch below the uterine attachment. It was semi-tendinous, contained a minute artery, and was evidently congenital. Band was four and one-half inches in length, one-fourth inch in diameter, almost round, and covered with a sheath of mucous membrane, which was firmly attached. Child normal, weighing seven and one-quarter pounds. Recovery of

mother uneventful. I had not seen or heard of a similar case, but have since found several records in the Surgeon-General's office at Washington, D. C.

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J. G. Cecil, M. D.:

The use of *the post-partum douche* as a routine practice is still in vogue to a greater or lesser extent. Many times the patient makes a special request to be syringed, because its use in previous confinements made her feel so good and clean. There is a use for a vaginal syringe, but it is a very limited one, particularly in obstetric practice, and it is a debatable question as to whether the female sex would not be better off were every vaginal syringe blotted out of existence. I wish to go on record as advocating the vaginal douche only when there is a positive indication for it, and then only when in competent hands and under the most rigorous aseptic precautions. Assuredly the delivery of a child with clean hands or clean instruments is not a positive indication for a douche to follow. Bacteriologists have shown the vagina to be a fertile field for bacterial growth and development—the normal habitat of probably forty or fifty different varieties of germ life. Part of these are inimical to health, part are not. So we may picture a constant warfare going on between the foes and friends of health. In the majority of instances the friendly bacteria are able to take care of themselves and their unconscious host. Accepting this as true, and it is proven by practice, then there is no need of help in the use of the douche, and, moreover, the antiseptic so used will prove as destructive to health germs as to disease germs.

The clean delivery of a clean woman with clean hands has not added a single element of danger, but the introduction of a douche point may carry germs from without to the interior. We all know how often the old family syringe will be called into requisition, and we also know how hard it is to impress upon the mind of the ordinary nurse even the elements of real aseptic practice in the lying-in chamber. Of course there will be differences of opinion as to what constitutes a positive indication for the douche. It is common belief and practice that an offensive lochia calls for the use of the syringe. While

this may be generally true, we see many of such cases progress to recovery as well without a douche as with one. Now and then we see cases develop unmistakable evidences of sepsis only after being subjected to vaginal injections.

Some years ago I was an ardent advocate of the vaginal douche upon even slight indication, and I have used the intra-uterine douche with signal advantage; but as years pass by I find less and less use for this kind of treatment. A very foul lochia, due to decomposing blood-clot or retained secundines, especially if accompanied by symptoms of constitutional infection; a sinus discharging pus into the vagina or womb; a purulent leucorrhœa present before and during labor; these and such like constitute positive indications for the use of the douche during the puerperium.

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George W. Whiteley, M. D.:

Meddlesome midwifery is bad; it is very bad in the *third stage of labor*. Nature nearly always does her work best unaided; the accoucheur's assistance comes in when she fails. Traction on the cord does no harm provided the placenta is detached; it does harm if not detached. This is easily found out by placing the hand over the uterus. I always tie the cord one inch from the vaginal opening, having previously very gently drawn down any loose coils remaining in the passage; then, by watching the length of cord to the ligature, we know if detachment takes place. After the child is born a short period of perfect rest comes as a great relief, so that, unless bleeding is taking place, I leave my patient entirely alone, not interfering with her in any one single way. The expulsion of the afterbirth very much resembles that of the child, contractions and relaxations following in regular order, the latter as necessary as the former, and it is clearly wrong to grip the uterus at once and prevent this. I have sometimes waited for half an hour for this shedding, and this with very little bleeding. Hemorrhage here is our danger, and if this be excessive the placenta must be removed at once, attached or unattached. A tired-out uterus should ever be supported by the hand. With ordinary antiseptic precautions I have never known any bad results to follow the introduction of the fingers as an aid to the removal of the placenta.

A. C. Barron, M. D.:

During a practice of ten years I began my first half-dozen cases by waiting patiently and standing on sentry on the uterus, and in the prescribed quarter of an hour *removing the placenta* by traction on the cord. Then I read Playfair's recommendation to remove the placenta by expression, and I vowed never again to remove a placenta by traction on the cord, but my third case, "a great-bellied woman," defied me to do it by expression; but after my hand had acquired experience in its work, I became able to do it in even these ill-to-get-at cases.

Such a thing as "undue force" is never necessary. The point to aim at for success is to get the hand to well surround the uterus and then close the hand firmly and, so to speak, squirt the placenta out. It is not by any means always the strongest grip that sends the placenta on to the bed.

Retained membranes I find a constantly occurring grief to many men. I adopt the plan of taking the placenta in my right hand off the bed after it has been expressed, and very gently and slowly draw the membranes out in the direction in which I find they are inclined to come easiest, and they come without any trouble. I have found many women in greater fear of the removal of the placenta than of the bearing of the child, owing to their experience of this "going up" for the placenta.

For the last three years I have made it a point in every case that I must have the placenta removed within five minutes from the moment the child was born. Only once have I exceeded that time, and as the sign I will mention later on, of the placenta having separated, was absent, I, after waiting half an hour, went home to breakfast for an hour, and my sign being present on my return the placenta came away on my first grasp of the uterus. I have more often removed the placenta in one and a half to two minutes from the birth of the child than I have been over two minutes. With even the weakest patient I consider it more necessary to remove the placenta in that brief interval, because the comfort in the relief to these weak ones that everything is finished is a stimulus of no mean power to them to revive.

The appearance of a tiny trickle of blood from the vagina is to me a sign that the placenta is separating, and I look upon it as an indication that the placenta is ready for removal and a call to remove it, and this sign I find appears very early. I obey it, though frequently I find it not necessary to wait its appearance, and I have never had any misfortune in any form from this early removal of the placenta; but on the contrary, I am convinced it is in every respect a gain. I am never in fear of post-partum hemorrhage. I very rarely give a dose of ergot. To me the chief charm of this early removal of the placenta is in witnessing the immediate facial expression of relief and comfort that is given by every mother when she is told "now your work is all finished, everything is away." Never having had an "hour-glass contraction" nor a placenta that it was necessary to "go up" for, nor one "growing to the side," whatever that may mean, I cannot share the pleasure that those who experience those worries would have if they adopted this earlier expression of the placenta. One thing I am certain of in this early interference is that the uterus gets no time to play such tricks as contracting like an hour-glass.

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Hugh Taylor, M. D.:

Thirty-seven years of midwifery practice have taught me not to *remove the placenta* directly after the birth of the infant. Wait a quarter of an hour or more, then press firmly on the uterus in a downward direction, and the placenta will then generally find its way into the vagina, where it can be seen at the orifice of the vagina, and then gently be pulled away. I advise most strongly the rotation of the placenta several times (I always rotate it twenty times). On no account, if possible to avoid it, introduce the fingers or hand into the vagina or uterus after the child is born, for it is then the risk of septic mischief is so great.

♦ ♦

A. W. Stewart, M. D.:

I am convinced that by *removing the placenta* as soon as a decent contraction can be started much good is done. I believe there is less hemorrhage, and certainly, as one corre-

spondent remarks, the moral effect upon the woman is good. It is stated that by early removal you are likely to have more bleeding, or to break the placenta or membranes. I have observed my assistants, who usually come straight from hospital and carry out book teaching, and find their results much like mine in my earlier practice. It is surprising what a large number of adherent placentas and cases of hemorrhage are encountered by beginners. They are afraid to attend a confinement without taking a douche, and when they use it the water is so hot they lose you your patient and ruin your syringe. On the birth of the child the placenta is separated more or less from the uterine wall. By immediate removal you deal with one set of clots. By waiting, clots that have already formed are likely to be disturbed by the changing shape of the womb, and clotting has to take place a second time. I cannot believe the slight pain necessary for expulsion can cause the uterus to relax, considering the magnitude of pain previously experienced; neither can I understand why the placenta or membranes should be torn unless adherent. You, as nature does, simply change the shape and size of the uterus, and so separate the body.



George Porter, M. D.:

For thirteen years I have had a large midwifery practice, reaching at one time over three hundred cases in the year. I always use some *traction on the cord*, and always express. I proceed to remove the placenta as soon as I have placed the baby on one side. I have never lost a case from post-partum hemorrhage. I have not had hour-glass contraction for years, and have never inverted the uterus. After experience I find one can save time, and I think patients, by departing from the orthodox. I do not say this boastfully, as we all know expertness comes with practice. When removing the placenta it is a good plan to place the right hand on the uterus with the arm between the patient's thighs. Twist the cord in and out the fingers of the left hand, coax the uterus to contract; do not knead hard. If there is a soft corner palpate the part gently, and when the organ is hardening equally (slight traction on the cord will stimulate the uterus), give the expression

suddenly, and pull more strongly on the cord. Then is just the right moment to tell the patient to bear down, which has to be learned. Should the effort fail (which it seldom does) wait two or three minutes and try again.

William Legge, M. D. : ♦ ♦

As to the *management of the placenta*, I may say that during a practice of nearly fifty years I have invariably avoided delay in the removal of the placenta. I fail to see any reason for waiting for "after-pains." On the birth of the head if a little resistance is offered to the too rapid following of the shoulders and body, the uterus is emptied of its whole contents at once; then, if firm pressure is made over the contracting uterus, the placenta, with slight traction on the cord, follows naturally. In my opinion speedy removal of the placenta is the proper and reasonable method. Of course, adherent placenta is a different matter, but I have found young practitioners imagine themselves confronted with this serious complication simply because they have allowed the contracting uterus to grip the after-birth—a result of delay.

Emil Ries, M. D. : ♦ ♦

Some two or three years ago I read a paper on *conservative operations on the tubes*. I am happy to say that I can improve on the report which I then gave. At that time I did not know that any of the women upon whom I had operated in this conservative way, and where I had opened the tubes that had been occluded, had become pregnant. I know now of two women who have become pregnant after having had occluded tubes which were opened up, and they have gone through labor easily, without any disturbance. One gave birth to a child at full term, and the child is living to-day. I saw it only two months ago. The other had a miscarriage at three months, but this could not be charged to the operation. It had no connection with the operation.

It is with these conservative operations, as with many other operations, that we must select our cases. We cannot operate on every case in a conservative way. Where we have an old chronic gonorrheal affection of the uterine appendages, where there is a thickening of the tubal walls, where there is a loss

of epithelium and destruction of tissue in the tubal mucosa, where there are minute abscesses in the tubal wall, and where there are minute abscesses in the ovarian tissue, a conservative operation is not indicated. In such cases the most radical operation is the best. I have never felt sorry when I have done a radical operation on such cases, but I have been sorry sometimes when I did a conservative operation. In some cases I have underestimated the pathology of the organs affected, and have resorted to a conservative operation when it should have been a radical one. While I have not lost any patients, I have had two cases in a series of thirty conservative operations in the last three years who had fever and the formation of abscesses, and neither one of them has conceived. If I had done a radical operation, they would not have had any trouble.

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B. H. Blair, M. D.:

As the greatest danger to the integrity of the pelvic floor lies in the too rapid delivery of the fetus through the vulva, the main reliance for *preventing laceration* is to regulate the expulsive force so that it is just sufficient to overcome the resistance.

With the inception of the second stage of labor the uterine contractions are supplemented by the voluntary contractions of the abdominal muscles, and when, as is often or generally done, the pelvis is fixed by supporting the knees or feet, and the chest is fixed by pulling upon the hands of the attendants, who encourage the woman to "hold your breath and bear down" the voluntary force thus exerted exceeds that of the uterine contractions. After a variable time of one or two hours, "the perineum will be found to bulge out and the vulva open a little with each pain, at which time the disposition to exert the voluntary muscles is increased by the reflex irritation caused by the head pressing upon the perineum. With each recurring pain the perineum bulges more and more, relaxing with its termination and the recession of the head.

By availing ourselves of the confidence and trust our patients usually repose in us, we may generally have them exert their voluntary efforts when we will, and refrain from

straining efforts, command the attendants not to support the knees, not to pull the patient's hands or permit her to pull upon their hands. If the woman cannot or will not refrain from making powerful expulsive efforts when we direct, she may be placed upon her side, may be directed to make frequent short respirations, or better, chloroform may be administered, and anæsthesia sufficient to overcome voluntary efforts induced. At the same time the palm of the hand should be applied over the distended perineum just in front of the anus, and moderate pressure made (not at the most distended and thinned, bloodless portion, lest we favor what we would prevent), in an upward and forward direction. Pressure made at this place in this direction and intermittently will favor flexion, retard the too rapid expulsion of the head, and direct the occiput toward the pubic arch. The following case will serve to illustrate the relaxing effect of chloroform, and the importance of securing successive distention and relaxation of the perineum:

Mrs. G., primipara, age seventeen, after being in labor about ten hours, was seized with convulsions, the os was dilated to about the size of a silver dollar; chloroform was given to control convulsions. Dr. E. S. Stevens was called in consultation, and while awaiting his arrival preparations were made for instrumental delivery. Under the anæsthetic the os soon dilated, the vulva was scrubbed with soap and water and washed with carbolic solution. The forceps were applied and intermittent traction soon brought the head to bear upon the pelvic floor; continuing intermittent contraction in the axis of the dynamic pelvis, several minutes were allowed for the successive stretching and relaxation of the soft structures, with the result of delivering an average-size child without even lacerating the fourchette, as an ocular inspection by myself and Dr. Stevens at the time of greatest distention proved.

I believe that when the circumference corresponding to the sub-occipito bregmatic diameter of the child's head is engaged in the vulvo-vaginal girdle, that all voluntary expulsive efforts should be suspended, even if it should require the momentary pushing of the anæsthetic to the surgical degree for the purpose, and that all traction in forceps cases should be

discontinued, in order to allow the elastic perineal structures to retract over the forehead instead of being violently elongated, as a longer diameter—the suboccipito-frontal—is escaping the vulvar opening.

After delivery of the head care must be continued during the delivery of the shoulders, lest a new rent be made or a slight one caused by the head be increased.

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M. D. Gibbs, M. D.:

As a general rule it is during the *second stage of labor* especially that knowledge and skill on the part of the obstetrician are of service, and I believe that we are usually able to facilitate the labor of our patients to a considerable degree, and that without pain or danger to them.

Rotation.—Here I find we can frequently be of service. We often observe in a case that has been progressing nicely, that when the head is well engaged in the pelvic cavity delay occurs; there is no further advancement, though the pains continue with unabated vigor. In such cases I use my fingers in the manner of a vectis; placing the tips of the fingers (of the right hand) against the left side of the fetal head just posterior to the parietal protuberance and exerting towards the front and right of the maternal pelvis, thus aiding the rotation; and often effecting in a few minutes what would take an hour or two to accomplish by nature's unassisted efforts. In all cases the position, and the consequent direction in which rotation will occur, must be considered, and the pressure directed accordingly.

Expulsion.—Protecting the perineum. This is an important point to which attention should always be paid; and although in some cases I have failed, I have in many instances preserved uninjured, or with a slight tear, a perineum that would almost certainly have been extensively lacerated. The object here is, I think, best accomplished by placing the thumb and fingers on either side and posterior to the fourchette and pressing the tissues by a kneading movement forward and to the median line.

Some authors speak of aiding in the extension, but I cannot say that I have had much success with that procedure,

which consists in introducing a finger into the maternal rectum and exerting pressure on the fetal chin.

The head being born, restitution, or external rotation, occurs automatically. I support it with my hand, at the same time slipping my fingers down on the neck to see if the cord is looped about it, and if so, loosening the coils so that the body may slip through them. The left hand I keep upon the mother's abdomen, in readiness to make pressure upon the fundus of the uterus as the body of the child is expelled. Should the shoulders not pass out readily, it is well to slip one finger down under the left arm and by traction aid in their expulsion. At this time I direct the attendants to remove the pillows from under the mother's head, leaving perhaps one small one.



Silas Hubbard, M. D.:

It would have been a good thing had the Walcher *position in labor* never been suggested. In the early stages of labor his position is a nuisance. It favors the propping of the vertex on the pubic bones, thus converting the presentation to a forehead or face case, or favoring the turning of the child on its back, thus making a posterior vertex presentation; and there is no advantage of his position in the last stages of delivery, for the perineum is just as much relaxed by the woman lying in her bed on her back with her legs extended, while she would be much more comfortable, and all the advantages of the rotation of the head and the expulsion of the child through the outlet would be equally great.

If you watch a woman in labor, untrammelled and not interfered with, you will ordinarily see her up and about, or on one side or the other, in the early stages of labor, but in the last stages of labor she will ordinarily turn on her back, which is the easiest way for her to be delivered at last. She naturally assumes those positions which naturally favor delivery the easiest and best.

When the vertex has been propped up on the pubic bones and the presentation has been converted into a face case, with the chin posterior, the woman ought to get in the knee-chest position to have the head righted, for that position would tend

to force the vertex in the right position, and I would suggest—this is original with me—that the woman's hips be raised even more than the knee-chest position, and even so that she would stand on her head a minute or two. It would give the vertex a chance to fall away from its props and to assume its natural position. The head frequently rights itself by a proper change of the position of the mother.

In forehead or face presentations, if the chin is to the left have the woman lie on the left side if you wish to bring the chin under the arch of the pubis; if the chin is to the right, reverse last said position. When the vertex cannot be brought down, then manage, if possible, to always bring the chin at last under the arch of the pubis.

♦ ♦
E. H. Pomeroy, M. D.:

And now in accepting the responsibility, the unpleasantness, and the discomfort of habitual *examinations of the infantile ear* in almost every infantile disease, we do not have to be guided by whim or blind empiricism, for we can easily bring to our support substantial, sound, scientific theory, if not absolute conviction. The middle ear is a chamber of most delicate construction, with numerous recesses, processes, and angles, lined with the most delicate and absorbent of tissues, its walls rich in a network of nerves, blood vessels, and lymph channels, more intimately connected with the central nervous system than any other extra-cranial portion of the body, and in easily comprehensible connection with the gastro-intestinal and respiratory systems. It is easy for us to understand how this chamber can become infected through the eustachian tube, easy to understand how, once infected, an inflammation can be excited which will close this eustachian tube. The infection once established, this chamber is readily turned into an incubator for bacterial growth and a generator for the production of bacterial toxins. The natural process of infant-feeding, especially the most natural, the mother's breast-feeding, the sucking, causes the greatest possible tendency to the paroxysmal opening of the eustachian tube, through which bacteria may be expelled into the postnasopharyngeal space and with the next breath to be taken into the lungs or with the next

swallow to be taken into the stomach. The middle ear being affected and the exit being prohibited or impeded, we have the production of bacterial toxins in a place where they can be readily absorbed into the general circulation, a general toxæmia be produced, influencing any concurrent or accidental ailment in any other portion of the infant's body. This all seems to me so reasonable, so absolutely incontrovertible, and so substantiated by actual facts, that I insist it is our duty as general practitioners, as specialists in pediatrics, to give this matter our daily and most conscientious attention.

♦ ♦

D. G. Gordon, M. D.:

While it is true that neuralgia is often a cloak to hide ignorance, and while it is easy to make this class a dumping ground for those conditions which we are unable to explain, yet there are cases of *neuralgic dysmenorrhea*. A woman may menstruate painlessly for a number of years, until perhaps she is overworked or over-worried, may not be able to get her usual amount of outdoor exercise, and she begins to have pain during her periods, which gets worse and worse as time goes by. The pain comes on shortly before the flow and probably lasts for about twenty-four hours. If this woman is sent away for a holiday, she will probably be free from pain and remain free while she is away, and if she stays away a few months she will likely be free for some periods after her return. The results are different in the inflammatory variety. In this neuralgic type tonic treatment, good fresh air with exercise and good food will probably effect a cure. I wish to recommend in these cases the wise use of the bicycle. I would like to deprecate most strongly in these and similar cases of dysmenorrhea the use of alcohol and sedatives, also the making vaginal examinations in the unmarried. It would be a most unfortunate thing if any patient suffering simply from neuralgic dysmenorrhea were subjected to local treatment.

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M. D. Rabenoyich, M. D.:

One important point which I have observed, in the treatment of several hundred cases of *diphtheria*, is that each case is a rule in itself as to the amount of antitoxin required. The proper dosage of antitoxin cannot be laid down in the form

of a rule; it can only be determined by the symptoms and signs of the disease. The experience of the writer proves that the best results are obtained by a preliminary injection of never less than 3000 units, which amount should be repeated at from two- to six-hour intervals, according to the severity of the disease and the effect of the remedy upon the symptoms. As there is no method by which the physician can determine how much toxin is circulating in the system of the diphtheria patient, there can, consequently, be no knowledge of the amount of antitoxin required to neutralize the toxin; it may in one instance be accomplished by 6000 or 8000 units, in another instance only by 50,000 units or more. The only evidence the physician has to rely upon for guidance in this matter is the shriveling up of the membrane and a disappearance of the constitutional intoxication.

♦ ♦

J. F. W. Ross, M. D.:

What should be the treatment of cases of *malignant disease affecting the fundus of the uterus*? In all cases in which the disease is confined to the fundus, the uterus should be removed without delay. If the disease has fixed the fundus no operation should be performed; the golden opportunity has passed. If nodules are to be found in either broad ligament, it is useless to perform hysterectomy. The operation may be performed by means of the ligature or by using the clamps or angiotribe. I prefer the ligature; other operators prefer the clamps.

In performing vaginal hysterectomy I have a method of my own. I use a water speculum and keep water running over the parts, in order that I may do away with the nuisance of sponging. By this means the field of operation is kept clear so that the operator can see what he is doing. It is thus easy to dissect upon either side until the uterine arteries can be seen as curled vessels and ligated or secured. The outlines of the bladder can be readily made out as the blood is kept washed away from the raw surface, and the exact position of the sound in the bladder can be seen through the tissues to assist in preventing perforation. When the operation is carefully performed and the bleeding thoroughly checked, the mortality rate is low.

When considering the advisability of operation we have to consider, on the one hand, the risks to be run by the patient and, on the other, the fact that she is suffering from an incurable disease and that she has nothing but the grave staring her in the face. When dealing with an affection that of itself produces death, and considering the advisability of carrying out a somewhat hazardous surgical procedure, we cannot afford to make the same allowance that we do when dealing with cases that may live for many years if left alone. On this account, I consider that partial operations, even though accompanied by a lower mortality rate, should give way to complete and more extensive procedures. Therefore, when a patient consults a surgeon for malignant disease of the fundus uteri, in its early stages, before the peritoneal covering is involved, before there are intra-peritoneal adhesions, and before any broad ligament nodules are to be made out, the only operation that should be considered is complete removal of the organ by abdominal or vaginal or abdomino-vaginal hysterectomy.

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L. H. Dunning, M. D.:

Of great importance in *spasmodic dysmenorrhea* is the relief of mental strain, worry, and overwork. Englemann has shown that in young girls in high school the increase of suffering is at least ten per cent. during the course of high school study.

One year I had under my treatment two school-teachers whom I tried in vain to relieve of painful menstruation. One had a prolapsed ovary and was anæmic. She spent her summer vacation in outdoor life in the mountains of Tennessee, returning in the autumn rosy and entirely free from pain. The other patient was full-blooded and stout. She spent a half year in travel upon the continent of Europe. While away after the first period she experienced no pain and returned to her duties in the school a well woman, and had remained so at the end of one year.

♦ ♦

M. F. Porter, M. D.:

I have no doubt but that every physician can call to mind articles recommending curettage, coupled with opening of the

cul-de-sac and drainage, in cases of "*puerperal infection*"; or can recall published reports of cases in which brilliant results were achieved by this method in cases of "*puerperal sepsis*." I have read a number of such articles and reports from the pens of men of authority, and there can be no doubt but that the treatment instituted was correct, and that the results were highly satisfactory. I would not presume for a moment that these men did not fully understand the pathologic conditions which they sought to remedy by these measures, but I do deny their right to take it for granted that every one who reads their articles will know that by "*puerperal sepsis*" and "*puerperal infection*," as applied to these particular cases, is meant infection of the endometrium and pelvic peritoneum. It is the inadequacy of the terms used to convey a correct idea of the pathologic conditions for which they recommend these measures that is complained of.

The points I wish to make are: That a diagnosis of "*puerperal infection*" or "*puerperal sepsis*" is inadequate.

That these terms are continually being applied to cases differing widely in pathology, and requiring radically different methods of treatment.

That this looseness and lack of accuracy in the use of terms has led, and will lead, to improper and harmful methods of treatment.

That practical accuracy in diagnosis is usually possible in the various forms of *puerperal infection*, and is essential to correct treatment.



A. M. Cartledge, M. D.:

In thinking of *sterility of women* I am in the habit of considering the uterus as the middle ground; that we have the sperm cell to ascend to this middle ground and the ovum to descend. Anything that prevents the descent of the ovum, or the ascent of the sperm cell, will cause sterility. I think the mechanical causes of sterility have been greatly exaggerated.

I have long since come to the conclusion that dilatation of the cervix rarely does good; it is the least effective of all the methods of treating sterility, and is the most commonly em-

ployed method. I have come to the conclusion that a cervical canal that will permit the escape of the menstrual fluid is not a barrier per se to conception. I have seen one instance where I thought a long cervix caused sterility, the sperm cells being placed at a disadvantage by being deposited in the upper portion of the vagina far beyond the cervical opening, and could not gain entrance to the long conical cervix. Aside from the so-called conical cervix with a small os, I do not believe a conical cervix is a barrier to conception. Of one thing I am satisfied, that the majority of cases are amenable to treatment. We should divide all cases into those beyond the pale of hope, and those that promise something from the various methods of treatment. Of those beyond the pale of hope, infantile uteri and complete stenosis of the tubes are among the most common. Those rare constitutional and systemic conditions which have lithæmia as a basis may sometimes be the cause of sterility. All the so-called mechanical and inflammatory effects I am satisfied will often be found very simple in character. I have had three cases of sterility which were caused by an endocervicitis with marked secretion of mucus, or a cervical mucous plug.

I have never relieved a case of sterility by dilatation of the cervix, because I argue that this is not the cause per se; that some other obstruction must exist.

H. H. Grant, M. D. : ♦ ♦

It has seemed to me that not infrequently *sterility in women* is occasioned by a long cervix and displacement of the uterus, which causes occlusion of the lumen of the cervix by displacement of the uterus itself; and that not infrequently menstruation will occur regularly and practically to a physiological degree through this displaced uterus and curved cervix after much pain has been experienced in the gradual straightening out of the tube. The menstrual fluid does not apparently escape freely for the first few hours of the beginning of the menstrual molimen, but after six or eight hours, during which time the uterus has been replaced and the curvation of the cervix has been more or less effaced by the efforts of nature to empty the uterus, then menstruation apparently goes on

normally. In the interval between menstruation, however, the uterus gets back into position, which is abnormal for other people but normal for this uterus, which practically occludes the cervix; and it has been my experience in three instances to have fertility succeed dilatation of the cervix by force in women who had, in one instance for several years, and in two other instances for a year each, been sterile. In each of these instances pregnancy succeeded the dilatation so promptly as to leave practically no doubt in my mind as to the fact that the dilatation had overcome the obstruction, and I reasoned with myself that the obstruction was of the nature that I have just endeavored to describe.

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E. L. Pierson, M. D.:

The first symptom that we notice when called to see a case of *infantile scurvy* is pain. The child is in terror of being touched. When perfectly quiet there is no pain, but any motion, especially of the legs, causes great distress. The legs and thighs are held flexed and rigid. The pain is first in the legs, then back and arms. The pain is early, constant, and increases in severity as the case goes on. Next the swellings appear, and later the gums become spongy and ulcerated. There is no fever as a rule, and the tender swellings are not hot. Anybody ought to be able to make a positive diagnosis without much difficulty; yet most cases that I have seen have been mistaken for something else, and it is for this reason that I desire to present the subject. The most common error in my experience is to call the cases rheumatism, yet rheumatism, I should say, was extremely rare under two years, especially in the first six to twelve months of life, when these cases of scorbutus appear. In rheumatism the joint is affected, it is hot, and fever exists. In scurvy the lower end of the diaphysis is involved, it is not hot, and no fever is present. The next most common error is to lay the disability to some fall or injury which occurred at about the time the symptoms developed. I have seen quite a number of such instances, where I was willing to say that if they would try orange juice for one week and the baby did not get well, I would acknowledge that they were right, and my diagnosis of scurvy was wrong.

As regards the distinction between rachitis and scorbutus, there ought not to be any doubt. In rachitis the swelling is epiphyseal, is chronic, is painless; and by the time it is as large as the swelling of scorbutus, there will be a well-marked rosary, and the characteristic head deformities. Stomatitis and hemorrhages do not occur in rachitis. The two diseases are at times found in the same child.

Pott's disease is rare under two years and has no swelling of the extremities. Acute anterior poliomyelitis has an acute and febrile onset with paralysis of later development. Purpura has no swellings of the extremities or stomatitis. Syphilis is more chronic, and the swellings are less tender, and therefore no one ought to fail to distinguish scorbutus from any of these four diseases. Practically, if you are called to a child lying with legs drawn up, dreading to be touched, with swelling over the lower end of the diaphysis of long bones, anæmic, with swollen gums, there is no other diagnosis you can make except scorbutus, and treatment for six or seven days will usually prove you correct.

Treatment is as a rule simple. The babies are usually bottle-fed, and proprietary foods, condensed milk, or cooked milk are used. Modified uncooked milk with orange or lemon juice should be given, one-half to one lemon or orange being used daily, with fresh beef juice. These children in my experience are greedy for the juice of both orange and beef. I usually give iron, etc., for the debility and anæmia. In severe cases the child must be kept quiet on a frame, but I have never had to resort to this as yet.

Editorial.

In an editorial speaking of the need of a hospital for tuberculosis for New York the Commercial Advertiser says :

“ The suggestion is made thoroughly practical by the fact that the Metropolitan Hospital, a well-organized institution of twenty years' standing, is now on Blackwell's Island adjoining these buildings which, when they were vacated, were turned over to its care. The management of this hospital, which has been repeatedly commended by successive commissioners of charities for its careful, economical, and scientific care of the patients and institution committed to it, is ready to undertake this work, thereby saving the city the expense of many appliances. This arrangement would also overcome the difficulty of securing the services of a resident physician for the tuberculosis hospital by a system of rotation among the physicians in the other divisions of the hospital, a condition which would not be possible in a separate institution. These suggestions, we understand, have been submitted to the charities commissioner, Mr. Homer Folks, by whom they will, no doubt, be carefully considered. That he is alive to the pressing need of a public tuberculosis hospital can safely be taken for granted,”

We would have our readers who are not acquainted with the name understand that the hospital mentioned is the largest homeopathic institution in the world and for twenty-seven years has been the exponent of scientific thought and opinion, and has done much to harmonize the conflicts of medical opinion. An institution under the Department of Charities, it has always stood first in the estimation of that board. It is to be sincerely hoped that conditions will favor the new project and put under control of the Metropolitan Hospital the tuberculosis pavilion mentioned, and we feel assured that its organization will be as successful in this instance as heretofore.

Book Reviews.

A TEXT-BOOK OF GYNÆCOLOGY. Edited by Charles A. L. Reed, A. M., M. D., Gynæcologist and Clinical Lecturer on Surgery at the Cincinnati Hospital, etc. New York: D. Appleton & Co., 1901.

In order to formulate a working manual for practitioners and students which shall embrace the best and most approved of developments of gynecology, the editor has assigned topics to thirty-one contributors who have made reputations and who have made contributions to science along the lines upon which they were asked to write. In this way a volume has been prepared quickly and done thoroughly, single chapters sometimes being written by several authors, but so blended and rendered homogeneous by the editor as to seem the work of a single writer. Contributions are also found upon independent subjects which are not strictly gynecological, but which have direct bearing upon that subject. This is a valuable innovation and thoroughly completes the subjects. Space prevents a detailed study of the individual merits of special chapters, but enough to say that this work is the most valuable of the recent contributions to the subject of gynecology. From a publisher's standpoint a beautiful volume, printed on fine paper and handsomely illustrated.

THE PRACTICE OF OBSTETRICS, BY AMERICAN AUTHORS. By Charles Jewett, M. D., Professor of Obstetrics and Gynecology in the Long Island College Hospital. Second edition, revised and enlarged. Illustrated: 48 in colors and 36 colored plates. Lea Bros. & Co. New York and Philadelphia.

The best evidence of the popularity of this work is in noting the fact that the first edition was published two years ago, and in that short space of time the necessity for a second edition was apparent, and the result is a most comprehensive second edition, with extensive revisions and many new illustrations, most of them original. The important alterations are in pathology and obstetric surgery. Those two departments are naturally subject to great changes with

improved methods of observation and development of high-class surgical technique, which must now be a part of obstetrician's accomplishments, as much so as that belonging to the abdominal surgeon. The publishers have spared neither pains nor expense to make a proper and fitting volume.

A TEXT-BOOK OF OBSTETRICS. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Third Edition, thoroughly revised and enlarged. Royal octavo, 873 pages, with 704 illustrations, many of them in colors. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, \$5.00 net.

Immediately on its publication this work took its place as the leading text-book on the subject. Both in this country and in England it is recognized as the most satisfactorily written and clearly illustrated work on obstetrics in the language. The outcome of a large practical experience, it is clear, comprehensive, original, and up-to-date. The illustrations form one of the features of the book. These are numerous and are works of art, most of them being original.

In this edition the book has been thoroughly revised. New matter has been added to almost every chapter, notably those treating of Diagnosis of Pregnancy, the Pathology of Pregnancy, the Pathology of Labor, and Obstetric Operations. More than fifty new illustrations, including three colored plates, have been introduced. The literature of the subject has been carefully reviewed, and the most important references since the last edition are given.

The author's extensive experience in eight hospitals as gynecologist and obstetrician, together with the fact that during his entire professional career he has taught medical students, makes his work particularly valuable. The text is condensed and quite to the point, very practical and well arranged.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Ten Volumes on the Year's Progress in Medicine and Surgery. Under the general editorial charge of Gustavus P. Head, M. D. Chicago: Year Book Publishers, October, 1901.

The object of this series is to avail the practicing physician of the true medical progress of the times and review the literature of each subject as it has appeared during the past year. It

consists of 2400 pages in ten small volumes, published separately at monthly intervals throughout the year. Vol i. is on General Medicine, and contains the literature on those diseases most prevalent during winter and spring; namely: diseases of respiratory organs, rheumatism and allied disorders, pneumonia, cardio-vascular disorders, etc. Vol i., on General Surgery, edited by John B. Murphy, surveys the entire field of surgery, and is absolutely up-to-date in every particular. Judging from the two volumes under consideration, this series promises to be a helpful adjuvant, and the extremely low price, with great excellence, should commend it to every physician.

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NOTE.

Jonathan Hutchinson, F. R. S., General Secretary of the New Sydenham Society, has requested Messrs. P. Blakiston's Son & Co. of Philadelphia, the American agents of the society, to announce the publication of "An Atlas of Clinical Medicine, Surgery, and Pathology," selected and arranged with the design to afford, in as complete a manner as possible, aids to diagnosis in all departments of practice. It is proposed to complete the work in five years, in fasciculi form; eight to ten plates issued every three months, in connection with the regular publications of the Society. The New Sydenham Society was established in 1858, with the object of publishing essays, monographs, and translations of works which could not be otherwise issued. The list of publications numbers upwards of 170 volumes, of the greatest scientific value. An effort is now being made to increase the membership, in order to extend its work.

Translations.

LITHOPÆDION DEVELOPED WITHIN A YEAR.

Slamjer (*Centralbl. f. Gynäk.*) records a case where menstruation ceased in July, 1898. Attacks of syncope occurred in the third month. Spurious labor set in on January 10, 1899, and lasted for nearly three days. Gradually the abdomen grew smaller, but the patient became sickly, and suffered from abdominal pain. Menstruation began again in March and became regular. A tumor, like a fetus in outline, lay above the right groin. Retained fetus was diagnosed, and abdominal section performed on November 5. The fetus and greater part of the placenta were removed. They lay in a cavity formed by the cæcum and right broad ligament to the right and anteriorly, by the uterus in front to the left, and by the left broad ligament to the left and posteriorly. The cavity was packed with gauze. Convalescence was delayed, owing to an abscess in the left inguinal region and right oöphoritis. The fistulous tract caused by the drainage did not heal for fifteen months. The fetus was a male, weighing close upon three pounds. It was doubled up and covered with adhesions; the skull was hydrocephalic. The body was not flattened, but fairly round. The skin seemed as though tanned, and was covered at certain points, especially on the back, with yellowish-white streaks, which on microscopic examination proved to be deposits of lime salts. Similar deposits lay in the adhesions. There were abundant crystals of fatty acids in the subcutaneous tissues.

HYSTERICAL TETANY IN CHILDBED.

Cristeanu (*Rev. de Chir.*) reports the case of a woman, aged twenty years, in labor at term, who had extreme anasarca without albuminuria. Pains at first good, then failing. Os found dilated after twenty-four hours, and, there being no progress three hours later, she was delivered under chloroform

with forceps, in the interest of the child. There was great hemorrhage. Convalescence was normal, temperature normal, and she was anxious to nurse the child herself, though very anæmic. On the twentieth day her husband decided to get a wet nurse. Two days later she had a sudden attack of severe pain in the left temporo-maxillary joint, without rise of temperature. The pain persisted in spite of antipyrin, salicylates, and massage, and spread to the left half of the neck, simulating a rheumatic torticollis. She then had frequent attacks—twelve to twenty in twenty-four hours—of sudden violent contractions of the left masseter, so that she bit her tongue severely, and once she had retraction of the head and opisthotonos. There was impairment of swallowing and an attack of suffocation. In spite of treatment the condition spread till the whole left side was affected. The attacks lasted about twenty minutes, were painful, came on at any time, but specially under the influence of gay or sad emotions. She had a zone of complete anæsthesia and hyperæsthetic spots without any visible alteration. Under the administration of valerianate of ammonium and warm baths she improved, and in forty-five days was completely recovered. Her previous history furnished no explanation. She had never shown hysteria, and the family history was good.

MALIGNANT MUCOID POLYPUS OF CERVIX.

Krzyszowski (Przegl. Lekarski) reminds us that, as in the case of deciduoma malignum, the malignant soft polypus of the cervix is not so purely a pathological curiosity as was once supposed. Already twenty-four cases have been recorded of this "myxosarcoma striocellulare," which means that many more have been overlooked. It has been detected at all ages, from two and a half years to sixty-three. It grows with great rapidity and is of extreme malignancy, all cases already recorded having ended fatally. It always appears in its earliest stages as a tumor resembling in outward characters a common mucous polypus. Speedy recurrence reveals its malignancy; it soon sprouts up again and forms a racemose tumor

formed by sessile and pedunculated masses of variable size, gelatinous, and pale red or even very dark in color. In form the tumor recalls a hydatidiform mole; it fills the vagina and protrudes from the vulva. Krzyszkowsky's patient was aged twenty-nine, and had been once pregnant, twelve years previously. Already she had twice undergone the operation for removal of a mucous polypus, and the curette had also been removed. The uterus was quite movable; the tumor sprang from the posterior lips of the cervix. Total hysterectomy was successfully performed and recovery was rapid.

THE ÆTIOLOGY OF EYE INFLAMMATION OF THE NEWBORN.

F. Schanz (*Zeits. f. Augen.*) protests against the doctrine of some of the standard books, such as Fuchs and Finger, that cases of blenorrhea in the newborn are uniformly gonorrheal, and against the practical deduction that when they are not gonorrheal a little douching is all the treatment needed, and that they disappear in a few days (Greef). He cites from the literature from 1884 onward observations proving that even in a series of bad cases the gonococcus is absent in a considerable proportion, usually about a third. Experience in practice inclines one to join in his demur to Finger's proposition, "Micro-organisms cultivated from gonorrheal pus and not identical with the gonococcus produce no blenorrhea."

CONSTIPATION AND STERCORÆMIA IN PREGNANCY.

Macé (*L'Obstétrique*) brought before the *Société Obstétrique de France* three instructive cases of stercoræmia, two associated with pregnancy and one with the puerperium. In the first cases abortion appeared imminent during the second month, there was albuminuria and rise of temperature. A glycerine enema was given; it was followed by a free evacuation. Two days later, though all hemorrhage had passed off,

there was still albuminuria, the temperature was 101° ; 20 grams (about three-quarters of an ounce) of sulphate of soda were given, and eight very free motions followed; much of the fecal matter was fetid and very old. Two days later, as the temperature rose, a glycerine enema was given; another large motion was passed. Afterward all went well and the pregnancy continued. The second case is yet more important, as being associated with the hyperemesis—how far as cause or effect may be disputed. At her previous pregnancy premature delivery was induced at the eighth month. On the occasion reported, vomiting caused great emaciation. The last period was at the end of August, 1900; the sickness set in during December, and on February 2 the patient was so ill that the induction of labor was suggested. It was then found that her bowels had not been opened for thirteen days. An enema brought away a quantity of old fæces. After some difficulty the bowels were thoroughly opened at the end of five days, enemata being used exclusively without purgatives. The vomiting ceased and the pregnancy continued uninterruptedly. The third case suffered from albuminuria during pregnancy, and was put on a milk diet. Just before delivery she declared that her bowels had acted regularly; delivery was normal. The temperature rose, there was no evidence of sepsis even on the second day, when the temperature was 103.8° . Fifteen grains of rhubarb were given, then the bowels opened well; next day the patient took 15 grains of benzo-naphthol, and after free intestinal irrigation, masses of old fæces came away, then the patient began to recover. Budin has already noted how constipation is not rarely caused by the milk diet used in albuminuria. This stercoræmia brings about a reappearance of the albuminuria, with rise of temperature. Thus albuminuria in pregnancy may be directly due to stercoræmia, and high temperature in the puerperium may also signify retention of old fæces, no true puerperal sepsis existing. Budin, in the discussion on Macé's cases, admitted that it was not always possible to empty the bowels sufficiently in constipated pregnant and puerperal women. He found that salines caused liquid motions, which might go on passing indefinitely without bringing away old solid fæces. He therefore gave an

evening dose of rhubarb or "tamar Indien," followed the next morning by a saline in a tumbler of water. Very free purgation usually followed; if that medication failed or proved slow, an oil or a water and glycerine enema was administered.

PRIMARY TUBERCLE OF UTERUS.

Hanschka (Centralbl. f. Gynäk.) removed the uterus and appendages from a married woman, aged twenty-nine, with no history of tubercle. She had aborted once, seven years ago, at the third month, and had never been a second time pregnant. Right oöphoritis occurred four years before operation. For five months there had been a yellow discharge and occasional hemorrhages. The patient was well nourished, and had no evidence of tuberculous disease of the lungs, joints, or peritoneum. The cervical canal was filled with irregular protuberances, which suggested cancer of the cervix. A piece of the new growth was excised, and giant cells were found, with other characteristic evidences of tubercle. The uterus and appendages were removed through the vagina, and recovery was speedy. The whole endometrium was infiltrated with tubercle, which had destroyed the glands as well as the epithelium, and the cervix was deeply ulcerated. The epithelium was perfect in the fallopian tubes, but there were traces of tubercle in the mucosa. The ovaries and peritoneum were not infected. But few tubercle bacilli could be detected. The appearances indicated primary tubercle of the uterus. Ludwig, in discussing Hanschka's case, related his own, where the uterine glands and epithelium were likewise destroyed, but the cervix was quite free from tubercle.

FIVE CASES OF OSTEOPLASTIC CARCINOMA.

Erbslöh (Virch. Archiv) found in three cases of primary carcinoma of the prostate, one of gastric carcinoma, and one of carcinoma of the bile ducts, extensive metastasis in the bones with new bone formation in their structure. In all the pri-

mary tumors there was some tendency to degeneration and a penetration of the connective tissue by the cancer cells resembling a round cell infiltration without the formation of larger, more compact cell nests. In their extension the cells showed a predilection for preformed channels, especially capillaries. The new bone was in the interstitial tissue, and for the most part without the intervention of osteoblasts; from the connective tissue osteoid tissue developed, and lime salts were deposited therein. The author attributes this development to a congestive hyperæmia secondary to blocking of capillaries, and compares it with the new formation of connective tissue in varix and the influence of circulatory stasis on the formation of callus. These bone-forming metastases were found chiefly in the spongy structure especially of the lumbar vertebræ, the upper end of the femur, etc., and also in the marrow of the long bones.

INOPERABLE CANCER OF THE UTERUS.

Fr. Torggler (Münch. med. Woch.) finds that the percentage of inoperable cases of cancer of the womb, and of all cases of this disease varies greatly according to different observers. In his practice he found that 92 per cent. were inoperable. In his gynecological department during the years 1896 to 1900, 2097 patients applied for treatment, and 274 of these (that is, 13 per cent.) were suffering from carcinoma uteri; 22 cases were fit for operation, but only 14 submitted to it. On the other hand, Doederlin found 50.1 per cent. of his cases inoperable, while Mackenrodt found 92.9 per cent. inoperable. In Berlin, from various causes, the operability of cases has increased from 19 per cent. to 53 per cent. With this enormous number of inoperable cases, Torggler considers it of use to give his experience of palliative treatment. The symptoms for which he applies his treatment are discharge, hemorrhage, and pain. To combat the first he finds that peroxide of hydrogen, in a 12 per cent. (by weight) solution injected or applied, rapidly diminishes the quantity, and removes the offensive odor of the discharge. The method he finds most efficacious is as follows: A speculum is carefully and properly in-

roduced, the surface of the growth is cleaned up by swabs, and iodoform gauze soaked in the solution of H_2O_2 is packed into the vagina. As soon as the H_2O_2 touches the suppurating surface a formation of foam is seen, which is produced by the liberation of oxygen. To allow this action to be effective as long as possible, strips of dry gauze are further packed into the vagina. The whole packing is allowed to remain for from two to four days. He cannot believe that H_2O_2 acts in stopping hemorrhage, as some observers maintain. Further, he advises the application of formalin. At first this is applied as a 4 per cent. solution, but later he uses 40 per cent. (that is, Schering's original solution). The caustic action of this drug causes contraction of the raw surface of the growth, and its antiseptic action diminution of the discharge. With these two palliative remedies the profuse stinking flux, the occasional hemorrhage, and the wearing pain so common in these cases can be effectually dealt with.

CHOLECYSTITIS DUE TO THE TYPHOID BACILLUS.

Brion (Centralb. f. Bakt.) records a case of typhoid relapse complicated on the seventh day by a cholecystitis. At the post-mortem examination although made twenty-seven hours after death, he isolated a pure culture of the typhoid bacillus from the gall bladder. This was identified by culture reactions and also by the agglutination test. Several similar cases have been recorded, but apparently none verified by the agglutinating reaction.

RESULTS OF AMPUTATION OF THE VAGINAL CERVIX.

M. Graefe (Münch. med. Woch) raises a protest against the operation of amputation of the vaginal portion of the cervix for hypertrophy (prolapse), and for other conditions. He

merely mentions that the operations with Paquelin's knife cauterizer, with the *écraseur*, and with the galvano-caustic snare, are operations of the past; and then he turns to the operation of removing a wedge-shaped piece of the cervix. The first disadvantage that he points out is that, unless one carefully guards against it, the cervical mucous membrane is very easily brought outwards into the vagina on sewing up the cut surface. That the delicate epithelium of the cervical canal is unfitted as a lining membrane of the vagina is obvious, and he briefly describes how easily it is wounded in coitus, and how ill capable it is of guarding itself against microbic invasion. The next disadvantage is that the remains of the cervix, after wedge-shape amputation, shrinks, and very frequently shrinks to such a degree that there is no vaginal cervix left at all. In itself this appears to produce no direct symptoms, but Graefe states that he frequently has observed marked retroflexion of the uterus, either as a result or existing before the operation. To correct this displacement, a ring or other pessary should be worn, but after the cervix has disappeared no pessary will keep in place. He considers that when the patient has a retroflexed uterus the operation should not be done, or, if it be carried out, a shortening of the round ligament must also be performed, and this is best done after the fashion of Alexander Adams. The elongation of the cervix or prolapse is sometimes cured, when it exists simultaneously with retroflexion, by correcting the latter, and keeping the uterus in a position of ante flexion. In pregnancy, the existence of a vaginal cervix is of importance, and he quotes some cases which show that after the operation a tendency to early labor presented itself. In one case a healthy working woman, after her first pregnancy, got a large prolapse. Anterior and posterior colporrhaphy was performed and cured the condition. After the next parturition the prolapse reappeared. A portion of the mucosa was abraded and the wedge-shape operation performed. The stump of the vaginal cervix immediately after the operation was larger than normal, but, on the patient being examined one year later, no vaginal cervix was present. She again became pregnant, and at the end of ten months, in spite of the pains having set in and the patient having walked a very long

way, the opening of the cervix remained as at the last examination. There was stenosis, or rather conglutination, which was only overcome by the passage of a probe, and later on by dilatation. True fibrous stenosis also occurs after the operation. He deals with the other forms of treatment which he prefers to this means, for prolapse with cervical hypertrophy. In the elongated form of cervical hypertrophy, called in German "penis-like," he agrees that the operation is of use. Some authors consider that the wedge excision is of therapeutic value for chronic metritis, but the more radical operation of amputation will give better results.

TREATMENT OF ANURIA IN CASES OF CANCER OF THE UTERUS.

Patel (Rev. de Chir.) concludes an elaborate analysis of the pathological anatomy, the causation, and the symptoms of anuria developed in the course of uterine cancer, with some remarks on the surgical treatment of this complication. In discussing the comparative advantages of nephrostomy and lumbar ureterostomy in such cases, the author sums up in favor of the former operation, which he regards as the only treatment for anuria due to compression of the ureter. It is much easier in its performance than ureterostomy, in which latter operation the surgeon is often obliged to make an extensive and tedious dissection of the soft parts before the duct can be exposed, and thus to run the risk of subsequent infection, and if the sutures be not closely applied, of infiltration of urine around the kidney. As the fibrous thickening of the structures around the obstructed ureter may have established close adherence to the parietal peritoneum, there is, moreover, a possibility of tearing through the serous membrane. In nephrostomy, on the other hand, the surgeon does not meet with these sources of trouble. The kidney may be easily exposed, there is less risk of wounding the peritoneum, and deep suturing is unnecessary. The primary advantages of the renal operation, the author points out, are less difficulty in its performance, less danger, and a shorter stay of the patient on the table. Neph-

rostomy, moreover, allows of better drainage, and as the opening is a larger one than that effected by the ureteral operation, the urine flows away as soon as it has been secreted. In lumbar ureterostomy the surgeon cannot be sure that he has opened the ureter above all the obstacles to the discharge of urine from the kidney, as this duct may present flexures as far as the renal pelvis, and the internal valves thus produced may impede, if not prevent altogether, the passage of fluid. The only point in favor of this latter operation is that by not distending the renal tissue it is not liable, like nephrostomy, to cause inhibition of the urinary secretion. This inhibition, however, in cases of nephrostomy is, the author states, usually of short duration, as the flow of urine is always re-established some few hours after the operation. In discussing the indications for nephrostomy for anuria due to compression of the ureter by uterine cancer, the author states that the operation should not be practiced on a very cachectic patient in whom the malignant disease has attained an advanced stage, as in such a case the surgical intervention and even the administration of an anæsthetic might cause death. In a young and still vigorous patient the operation is indicated, and it should be performed early and when only slight signs of intoxication are observed. The indications for nephrostomy in such cases are compared to those for the establishing of an artificial anus in cases of incurable intestinal obstruction. In both classes of cases there is a period of tolerance which is always protracted, but is likely sooner or later to become suddenly critical when uræmic or stercoral intoxication has attained its maximum. If both kidneys be enlarged and distended, it is not a matter of great importance on which side the operation be practiced, but it would be well, the author thinks, to select the right organ as being more accessible than the left. If the exposed kidney be found completely atrophied and reduced to a fibrous shell, the other organ should be opened. Although not invariably successful, nephrostomy, the author concludes, is a justifiable operation in most cases of anorexia caused by urethral compression in the development of uterine cancer, and that, as has been pointed out by Jaboulaye, it is necessary to intervene in such cases for the same reason that the surgeon opens the trachea for laryn-

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geal obstruction, the bladder when the urine cannot flow along the urethra, and the stomach in instances of esophageal stenosis.

ECLAMPSIA.

A. Hartz (Münch. med. Woch.) gives a summary of the present teaching as to eclampsia, with full bibliographical references. He states that eclampsia is an acute pathological process of parturition and of the puerperium, characterized by clonic and tonic convulsions, accompanied with loss of consciousness and more or less coma. The frequency of eclampsia is given in general as 1 case in every 500 births, but some authors give it as often as 1 in every 68 births. It occurs more frequently in spring and autumn than in other seasons. Primiparæ who are no longer young are most frequently attacked than others, and especially if the uterus is distended by hydramnios or twins.

The attacks occurred most frequently during the parturition, next during the pregnancy, and least frequently during the puerperium. In the latter it generally occurs during the first two days. A woman is rarely attacked for a second time with eclampsia. The attack may accompany abnormal as well as normal pregnancies. The eclampsia may affect the child as well as the mother. There are generally, but not always, prodromal symptoms, for example, headache (frontal and sagittal), sickness, pain in the stomach, giddiness, sudden blindness, restlessness and excitability, difficulty in passing water, and œdema. Epigastric pain is the most important of these. The attack very frequently sets in during sleep. If it occurs during waking the patient suddenly becomes quiet, the look becomes fixed, the eyes roll from one side to the other. The pupils generally dilate, the muscles of the face begin to twitch chiefly about the mouth, the arms, buttocks, and legs are next convulsed. The jaws are closed, the patient struggles in vain for air, the tongue protrudes between the teeth and is bitten, foam issues from the mouth, a deep cyanosis sets in, the respiration becomes stertorous, and a profuse sweating breaks

out. The convulsions are mostly of a clonic nature. The attack does not exceed two minutes in duration.

After the first attack, consciousness, which was lost, is regained mostly, but later on the patient remains unconscious during the intervals, and eventually enters into a deep coma.

The number of attacks varies enormously in different cases, it may be limited to a single attack of convulsions or may be as many as 60 or 80; one case had 104 attacks. During the attack the pulse is of high tension, frequent, and intermittent, and the blood pressure raised. In somnolent intervals the pulse is slower and often very full. In severe cases there is frequently some rise of temperature. In cases which end fatally the intervals become shorter, consciousness is not regained, and œdema of the lungs or apoplexy ends the scene. If eclampsia occurs during the course of pregnancy, a premature birth usually takes place. Rarely the patient may retain her fetus and recover; in this case a dead, macerated fetus is born at full time. Very rarely the child lives and is born at the ordinary time. In eclampsia during parturition the birth of the child takes place very rapidly, as a rule. The attacks cease after parturition in between 65 and 93 per cent. of the cases.

The course is milder in the puerperium than during pregnancy or during the birth (mortality given at 25 per cent.) Jaundice occurs occasionally, and is regarded as a bad sign. Psychoses follow the attacks in some cases (5 to 13 per cent.). During the attack the quantity of urine is diminished, and frequently a considerable quantity of blood is present. Albumin in large quantities and casts of all sorts are found in the urine in nearly all cases. The albuminuria ceases after the attacks are over in a certain number of cases, while in others it persists as a nephritis. Hartz deals with the various theories of the ætiology of this malady. He leans toward the opinion that eclampsia is due to an auto-intoxication, produced either by the metabolic changes in the maternal or in the fetal tissues. Each theory and very many modifications are expounded.

Under the heading of morbid anatomy he states that no definite pathological changes are constantly found in persons dead of eclampsia. The most common changes are in the kidneys, but these have no relative bearing on the severity of the cases.

Stasis, hemorrhages, cloudy swellings are each found in different cases; sometimes the kidneys are pale, whitish-gray, in other cases grayish-red, or even dark red, and emboli, infarctions, and necrosis are also found. Acute nephritis, with definite necrosis of epithelium, which has grafted itself on an old chronic nephritis, is perhaps the most common of the changes in the kidneys. The changes in the liver are much less common than those in the kidneys, and include enlargement and stasis, fatty degeneration, anæmic and hemorrhagic necrosis, thrombosis and infarction, and hemorrhages in the liver tissue, and under the capsule. In the lungs one finds at times œdema and emboli of liver cells, and giant cells from the placenta; the heart is often hypertrophied, and the brain shows œdema, bleedings into the parenchyma, into the ventricle, and under the meninges patches of softening, thrombosis, and emboli. He also mentions other changes, including those in the placenta. None of the post-mortem changes, however, help to clear up the ætiology of the disease. The diagnosis is usually easy, he says. A single attack may be mistaken for an epileptic fit, but with a little care these two conditions can easily be separated. Hysteria may also give rise to some confusion, but the incompleteness of the loss of consciousness and the absence of coma are sufficient to clear up the doubt. Apoplexy and convulsions due to anæmia are easily differentiated from eclampsia. The chief difficulty lies in the differential diagnosis between it and uræmia. The history and character of the case must be studied to remove this difficulty. Cerebro-meningitis has been confused with eclampsia, and the correct diagnosis was made on the post-mortem table.

The prognosis is always a serious one. For the mother it is doubtful, and for the fetus it is bad.

Under the heading of prophylaxis he advises a careful treatment of all cases of albuminuria in pregnancy, with rest, milk diet, baths, and sudorifics. Fehling examines the urine for albumin once every week during the last three months of pregnancy in every case.

The treatment is directed towards stopping the convulsions, managing the labor properly, increasing the secretion of urine, and treating any coexisting pathological condition appropri-

ately. Chloroform, morphine, and chloral hydrate are means of arresting the convulsions. He warns against a too free use of chloroform. He considers that morphine is the most useful drug in combating this affection. He mentions that several competent authorities, however, consider its exhibition as unjustifiable. Good results are said to be obtained with veratrum viride, especially in England and America. He warns against the use of pilocarpin. Amyl nitrate and amyl hydrate are said to give good results, and the same is claimed for bromides. Much difference of opinion exists as to the value of blood-letting, but he is of opinion that it is useful in some cases. Intravenous injections of saline fluid alone, or after a bleeding, are also said to give good results. Further, warm and hot baths, cold, wet, and warm packs, and Corvin's serum are mentioned as methods of treatment, with warm supporters. Jörgens and others claim to have reduced the mortality of eclampsia enormously by injecting potassium iodide solution into the breasts. The question of the management of the birth presents less differences of opinion. All are agreed that the birth must be completed as quickly as possible. There are, however, various opinions as to how this is to be managed. Fehling punctures the membranes, no matter how small the os uteri may be. Most others use dilators, plugs, etc., and later on apply the forceps. A few recommend accouchement forcé. This is mostly to be carried out by deep incision of the cervix. Another method is by means of Cæsarean section, which has many advocates. He concludes by giving an account of Stroganov's treatment by oxygen inhalation and morphine, with other therapeutic aids.

PUERPERAL FEVER.

A. Hegar (Münch. med. Woch.) includes among the sources of infection suppurating and putrefying wounds, abscesses, purulent catarrh, lochia, peritoneal exudation, turbid fluid found in the connective tissue spaces in erysipelalous and phlegmonous processes, and nychia, while to dirty clothing, neglected condition of the external genitals, and of the sur-

roundings of the anus he accords a place in another category, but the great source of infection lies in the hands of the medical attendant and of the nurse. The conditions of the genital canal are favorable to the development of streptococci, while the general disposition of the body toward septic absorption is frequently heightened. Hegar describes in detail all the factors which lead to the development of the infection, and pays particular attention to the want of free drainage for the lochia, which is so frequently met with. Obstruction by retained portions of membrane or placenta, or by blood clots, reflex contractions of the sphincter vaginae is responsible for this deficiency at times, but he believes that sutured tears of the perineum, when the suture includes but little more than the skin, while the rupture extends until high into the pelvic floor, and thus a blind space is formed in which the fluids stagnate, are most frequently the starting point of the coccus infection.

Under certain circumstances these may be a sort of safety valve, and lead the parturient woman past all these dangers, save when the organisms introduced are very virulent, and these circumstances, he says, consist in good uterine contractions, only moderate stretching of the cervix and the vaginal vault, with a small fetal head, or a rapid passage through the pelvis, no external or internal obstruction, and the natural flow of the blood and lochia, no marked fall of the intra-abdominal pressure, and in a plentiful lochial discharge during the first few days. He proceeds to describe the different effects the invasion of the parturient genital canal by streptococci may have. He discusses the pathology of phlegmonous processes affecting the parametric tissue; the local invasion of various tissues of the pelvis, the connective tissue, the secondary affection of the tubes and ovaries, and of the surrounding folds of peritoneum. These processes, he states, may remain circumscribed, and the inflamed appendages surround themselves with encapsulated exudation, and thus limit the extension of the local damage. He next deals with the invasion into the endometrium; and next with the pathological processes in the uterine vessels. In turning his attention to the clinical aspect of these conditions, he reminds us of the high fever, the frequent pulse of low tension, the rapid respirations and slight

cyanosis, the dry tongue, and the marked effect on the nervous system which characterize septic fever.

Of the so-called "milk fever" he says a few words. The pathology of this condition is not clearly understood, although he says that without doubt stasis and obstruction of the excretions play a part in the causation. He considers that the prognosis of septic fever in progressive processes in the connective tissue or in breaking down thrombi is fairly hopeless, although marvelous recoveries occur occasionally. We do not possess a reliable antistreptococcus serum, and quinine and alcohol usually prove themselves useless. Circumscribed phlegmons and peritonitis offer a better prognosis. In discussing the prophylaxis, he realizes the difficulties which beset the general practitioner in dealing with the poorer classes in their own homes.

He deals with the question of abstaining from attending confinement cases where the practitioner is brought into contact with other septic conditions, and warmly advises the utmost care under all circumstances with respect to clothes, hands, etc. He approves strongly of india rubber gloves for the practitioner. Lastly, he speaks very definitely and with excellent precision on the value and technique of intrauterine douching and drainage. The former he carries out at least once every hour, and sometimes three times, using chlorine water, diluted with from 3 to 7 parts of sterile water. With the combined use of these methods, he believes that much can be accomplished if properly carried out.

UPON THE CARE OF THE NAVEL CORD IN THE NEWBORN.

W. Leube (*Ibid.*) advocates tying the navel cord with thick catgut ligature .5 cm. from the skin, cutting off the cord just above the ligature and covering the remnant with abundant diachylon powder. This is renewed after a bath. He claims that this gives the most rapid falling off of the cord and aids in the after healing.

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RECENT PROGRESS OF GYNECOLOGY.*

BY HORACE PACKARD, M. D.

In reviewing facts of the past year relating to the treatment of diseases of women, one can but be impressed with the absence of anything which is new. It is true that multitudes of operations have been performed upon all the genital organs of woman, and the office practice of gynecology has thriven as of old, but as for new departures in operative technique or improved methods of local treatment, the year about closing has been markedly barren. This state of matters, at first thought, seems a derogatory commentary upon the medical profession, and yet, when we consider that in the last twenty-five years the reproductive organs of woman have been operated upon, and the diseases to which those organs are subject have been treated by almost every method that the human mind is capable of devising, we cannot be surprised if we are about entering upon an era of stagnation. So much has been accomplished by modern methods of surgery, that nothing

* Read before the Massachusetts Surgical and Gynecological Association, December, 1901.

new remains to be done. The genital organs are removed *in toto* by the abdominal or vaginal route. The surgical treatment of uterine displacements is an everyday occurrence, resection of ovaries has largely taken the place of ovariectomy. The vaginal tract is obliterated in cases of annoying and persistent prolapses; in fact the perfection of details in gynecological operations, and the unlimited extent of the same, leave practically nothing to the future. The past twenty-five years may truthfully be said to be the renaissance of gynecology. In my recent visit abroad I made a special point to search for new methods and new instruments for general and gynecological surgery. Almost without exception my interrogation was answered in the negative: "No, there is nothing new."

With this introduction, I will comment upon some methods of the recent past, and some mooted theories.

Do Fibromata Undergo Cancerous Degeneration?

This is a question over which there has been much discussion and many arguments, both pro and con. There is no question whatever but that there is a potent argument toward inducing fibroid cases to undergo operation. This line of thought is suggested by a report of seven cases by Hager (Centralblatt für Gynäkologie, 1901, No. 27).

These were cases of carcinoma of the uterus occurring simultaneously with fibroids. He states that the capsule of the fibroid seemed to impose a temporary barrier to the advance of carcinoma, but as soon as the capsule is penetrated the malignant disease spreads readily through the fibroid muscular tissues. He observed two cases in which epithelial ingrowths developed in the center of a fibroid, but in these there are no clear demonstrations of actual degeneration of the benign tumor. He closes with these words: "It has not been proven that the presence of fibroids favors the development of cancer. The expressions myo-carcinoma and cancerous degeneration of a fibro-myoma should be discarded."

Necrosis of the Cervix.

As far as the writer knows, the almost universal practice at the present time, in making an abdominal hysterectomy,

is to effect complete removal, that is, including the cervix. Supravaginal amputation is a much easier operation, and undoubtedly that factor weighs considerably with some operators. That the latter method is followed to some extent at the present time is evident, for Regall reports in the *British Gynecological Journal*, vol. xvi, No. 63, a case where on the fifth day the temperature rose to 102°. There was a profuse dark-colored, foul-smelling discharge from the vagina, and on the tenth day a slough was passed, which consisted of the gangrenous cervix. A similar case in the hands of another operator is also on record where the temperature arose on the fifth day, and some time later a large mass was passed, which was found to be the stump of the cervix with six sutures attached.

It is surprising that more cases of this occurrence are not on record, for it must be an ever-present danger following such a method of operating, for, with ligation of the uterine arteries, all direct blood supply to the cervix is cut off. Probably, could the truth be known, this accident has occurred many times in the hands of many operators.

Phlebitis Complicating Abdominal Hysterectomy.

This sequel following abdominal hysterectomy has occurred in the hands of the writer a sufficient number of times to suggest, at some convenient time, devoting an entire paper to the subject. That it is not an uncommon occurrence with other surgeons is evinced by an article which has appeared in the *Bordeaux Medical Journal* during the past year (*Journ. de Méd. de Bordeaux*, 1901, No. 271). In it Verdelet reports two cases of phlebitis developing two and four weeks, respectively, after abdominal hysterectomy. In both cases the operation was supravaginal, that is, the cervixes were left. He infers that this had something to do with the occurrence of phlebitis, in that septic material may have reached the wound through the cervical canal, and that inefficient drainage existed.

It is the writer's opinion that this could have nothing to do with the matter, for all which have occurred in his experience have followed total hysterectomies, that is, where the cervix and all was removed. There is a question also whether such

is due to septic infection. It is a subject of intense interest, affording abundant material for discussion and worthy of the most careful investigation.

Resection of Ovaries.

At the present time much interest is evinced in medical literature over the advisability of saving ovaries, or parts of ovaries, which show indications of disease. Apropos of this subject, experiments made by Kane show that the ovarian tissue kindly tolerates operative manipulations. He operated experimentally in various ways upon the ovaries of rabbits, with the following conclusions:

1. Aseptic wounds heal rapidly without the formation of granulation tissue, nor is there any evidence of local congestion and diapedesis, such as usually accompanies the process of repair.

2. The primary healing is due to activity of the epithelium of the medullary layer.

3. Lesions due to irritation of the ovary with turpentine in the formation of cicatricial tissue, which develops from the fibrous tissue of the stroma.

4. Infection with the staphylococcus albus is accompanied by extensive formation of granulation and necrosis, with the subsequent appearance of a large cicatrix.

Operations which the writer has made repeatedly in the last three or four years are also corroborative of the above. In very many cases of cystic ovaries the offending parts have been removed, and the resulting wounds were closed with fine catgut, without thereafter any unfavorable sequel, and in many instances there was relief of pre-existing pain. The question has always arisen in my mind whether, in saving portions of ovaries, one errs too much on the side of conservatism. My personal experience has given me no reason to believe that the practice is other than a good one. I have never known unfavorable results to follow, nor a second operation required. That such has not been universally experienced is evidenced by a recent article by Waldstein (*Centralblatt für Gynäkologie*, 1900, No. 40). He reports four cases from Schauta's clinic in which small portions of cystic ovaries were left be-

hind after complicated operations, necessitating a second operation for their removal. The writer concludes that the practice of leaving portions of the ovaries after extirpation of the uterus is one of questionable value, the advantages being offset by the possibility of the development of future complications.

Paraffin Injections in Incontinence of Urine.

This, while not applying strictly to the genital organs, is in such close relation therewith that it well may be considered under the title of this paper. It is an exception to the sweeping statement in the introduction as to the absence of anything new. As far as I know, this is an entirely new and original procedure, and is reported by Gersuny in the *Centralblatt für Gynäkologie*, 1900, No. 48. In a case of incontinence he injected paraffin ointment beneath the mucous membrane at the neck of the bladder. A firm ring was formed around the vesical orifice which sufficiently closed it, so that the patient was enabled to retain her urine from four to six hours. This report of a single case, while flattering, by no means establishes the value of such treatment. Its efficiency is based on the fact that the melting point of paraffin is considerably above the normal temperature of the body, hence it remains in the tissues as a foreign body, and as such may be the seat of irritation and supuration. It is worthy of trial, and I shall wait further reports with much interest.

Steaming the Uterine Mucous Membrane.

It must be admitted that this is a new departure, and it is said to be of considerable value in cases of uterine hemorrhage which have resisted curettement. Pincus (*Centralblatt für Gynäkologie*, 1901, No. 16) claims that no surgeon is justified in removing the uterus in climacteric bleeding until atmo-kausis has been tried. He claims, also, that it is of great value in cases of interstitial fibroids where, for some reason, radical operation is contra-indicated. In the same line of investigation Koslenko (*Centralblatt für Gynäkologie*, 1901, No. 17) has experimented upon dogs. Under a pressure of one atmosphere the uterine cavity rose to 210° F.; under a pressure of

two atmospheres it reached 215°. Strong uterine contractions were observed. The uterine muscle became pale, then grayish-red and finally gray, showing that necrosis had occurred. In the second series of cases uteri were extirpated at various intervals after atmokausis had been used for twenty seconds with a pressure of two atmospheres. On the first day partial destruction of the mucous membrane was observed; on the third day the necrotic areas were well defined; on the sixth day the dead tissues were thrown off, and on the ninth regeneration of the endometrium had occurred.

The deeper portions of the glands were not affected, hence the rapid renewal of the mucosa. By controlling the pressure and the duration of the exposure any desired effect could be obtained, even obliteration of the uterine cavity.

This method of treatment certainly gives a hopeful outlook to persistent cases of uterine hemorrhages which have heretofore resisted all methods of treatment except hysterectomy.

Formol in the Treatment of Uterine Hemorrhage.

Gerstenberg (Centralblatt für Gynäkologie, 1900, No. 34) reports excellent results in a series of cases of this character treated with intra-uterine applications of formaline full strength (forty per cent. solution of formaldehyde), no bad result following the application. The solution is applied on cotton wrapped around an applicator. The patient should be kept in bed a couple of days, if possible.

Gynecological Operations in Diabetics.

Lomer reports a case of currettement for repeated hemorrhages in a patient whose urine at the time of the operation contained only one-tenth of one per cent. of sugar. Immediately after the operation 4 3-4 per cent. appeared, and the patient died a few days later in coma. He calls attention to the fact that in diabetics who have been weakened by loss of blood gynecological operations are especially dangerous (Centralblatt für Gynäkologie, 1901, No. 3).

Thrombosis and Embolism following Hystero-Myomectomy.

Frequent occurrence of this unforeseen sequel is dwelt upon by Burckhardt (Zeitschrift für Geb. u. Gyn., Band xliii., Heft.

2), who met with 12 cases, 6 of which were fatal, in the course of 236 operations. This is a complication which can in no way be foreseen, and constitutes one of the real dangers incident to myomectomy. In the same line of thought Olshausen (*Zeitschrift für Geb. u. Gynakologie*, Band xliii., Heft. 1) comments on the diverse views regarding the necessity of operating upon uterine fibroids. He states that out of 300 cases seen in private practice during the last three years, he has operated upon only 53. In his opinion, one who operates upon a large proportion of his cases than this, must underestimate the dangers of the operation, some of which, especially embolism and intestinal obstruction, are unavoidable.

In an editorial comment upon the above Dr. Henry C. Coe of New York writes as follows:

"This conservative attitude, assumed by such a prominent abdominal surgeon, whose clinical material is enormous in comparison with that of the ordinary operator, is in striking contrast to the radical views expressed by many lesser authorities. Judging from many of our society discussions one would infer that in this country the percentage of fibroids selected for operations was often as high as fifty or seventy-five per cent. Indeed, we have heard it positively affirmed that every fibromyoma of the uterus which could be recognized at the examining table was to be regarded as practically an indication for operation. In spite of the improved statistics of hysteromyomectomy, we would do well to heed the warning that there will always be unavoidable deaths after the operation."

Hydrotherapy for Climacteric Disturbances.

It is evident to all that have given the matter consideration, that many women at the turn of life suffer very materially for a prolonged period from the disturbances incident to the change.

In a recent article by Gottschalk (*Deutsch. med. Wochenschrift*, 1900, No. 23) he speaks of the greatest benefit from warm salt-water baths, continued daily for four weeks. The flushing and perspiration were markedly relieved. The hot baths cause lowering of the arterial pressure by dilating the capillaries.

Reproduction of Fibroids.

In these days of myomectomy the danger of recurrence after extirpation has been effected is a matter of no little importance. In my own cases I have personally known of but one instance where such has occurred ; in that, several years later hysterectomy was performed.

Doleris (*La Gynécologie*, 1900, No. 12) reports four cases of myomectomy in which small fibrous nodules, which were regarded as insignificant at the time of operation, subsequently developed to such an extent as to require removal. In view of this experience in these and similar cases, he has decided to remove only pedunculated tumors or those which are easily accessible, where the uterus appears to be of normal size. He thinks that the indications in the future for myomectomy will be limited.

Appendicitis and Diseases of the Adnexa.

It is by no means a new discovery that inflammation of the appendix co-exists with salpingitis. Delageniere (*La Gynécologie*, 1900, No. 12) reports twenty-six cases of appendicitis associated with diseased adnexa. He believes that the inflammation of the appendix is usually secondary, although in exceptional cases he has found evidence that it was primary, the right tube becoming infected by the way of the lymphatics.

As regards the symptoms, in cases of appendicitis secondary to disease of the adnexa there is usually a history of former uterine or tubo-ovarian trouble, while the intestinal symptoms are less striking than in a case of primary appendicitis. The attack is apt to correspond with the beginning of the menstrual period, while in disease of the tube and ovary it reaches its greatest severity toward the end.

Varicosis and Fibroids.

Several years ago there occurred in the experience of the writer an hysterectomy for fibroids, in which there was extensive varicocele of the broad ligament. Although every care was observed in ligation, yet post-operative hemorrhage occurred which resulted fatally. That others have met with similar experience is evidenced by a recent article of Freund

(Centralblatt für Gynäkologie, 1900, No. 40). He calls attention to the significance of a varicose condition of the veins of the pelvis and lower extremities in connection with fibroid tumors of the uterus. Not only is there considerable danger of hemorrhage during and after operation from distention of the pelvic veins, but pulmonary embolism is a possible result.

The writer reports two fatal cases in which the patients complained soon after the operation of severe pelvic pains, with pressure upon the bladder and rectum, followed by a sudden relief of the symptoms, but with restlessness, rapid pulse, and collapse, the temperature remaining normal. In both instances a large hematoma was found in the broad ligament, which had exerted so much traction upon the stumps that the ligatures had slipped. The hemorrhage was due to the puncture of large veins below the points at which the ligatures were tied.

The Incision in Caeliotomy.

A novelty in incision has recently been described (C. G. Cumston, Amer. Med., October 5, 1901), which was such a marked departure from established custom as to merit mention. It consists of a transverse incision made at the upper limit of the pubic hair, transversely and somewhat in a semicircle, with the convexity upward. The skin and cellular tissues are dissected off from the fascia above the bellies of the recti muscles, and the lips of the incision retracted. The fascia is then incised vertically to the extent of five or six centimeters over the body of one of the recti muscles. The belly of the muscle is pulled aside with retractor exposing the fascia beneath, the peritoneum is then opened, and the author claims that through this incision he has performed with considerable ease total hysterectomy as well as removal of tubes and ovaries.

What is to be the Future of Gynecology?

It is evident, through the almost entire lack of progress of the present time and the preoccupation of the whole field, that not much is to be expected in the future from gynecological surgery. Progress, if made at all, must be along the line of preventive gynecology, and the widest field for such appears

to be in the education of the masses in sexual hygiene. There can be no question but that an enormous percentage of uterine disease, and diseases of the tubes, are from venereal infection. When the wholesome education in these matters of vital importance is included in the training of the youth, then will there be an appreciable falling off of many of the gynecological disease which now call for treatment or operation, many of them so grave as to forever blight the lives of the victims.

A more wholesome life of physical development for the growing girl also promises well for the future. It has now become a credit to any young woman to be strong, athletic, and enduring. This cannot do other than to better fit her to meet the emergencies of maternity and motherhood. A better understanding of malignant diseases and possible prophylaxis against uterine and ovarian cancer will materially narrow the field of gynecological surgery.



SURGERY IN GYNECOLOGY.*

BY J. W. HAYWARD, M. D.

I have great faith in "Medicine in Gynecology," but there is a limit to my faith.

Medicine in this domain is older than Hippocrates, and though still vigorous, it shows signs of senility.

Surgery is still young. It sprung up in such a fertile soil that much pruning and training has been necessary to keep it within due bounds and give it shapeliness.

There is a point where medicine ends and surgery begins, and another where surgery ends and medicine and hygiene come back to finish up the cure. In truth, they are inseparably joined by nature.

Those who doubt the efficacy of surgery have only to go back a few short years and count the mother wrecks in any hamlet, and count again to-day.

True, a few have exchanged wretched lives for painless death at the hands of the heroic and ambitious surgeon, but thousands have lived, and the masses have been made happy by a conservative settling to rational work.

As you all know, I am but a boy—yet I can easily remember when the profession was a unit in condemning even primary repair of the lacerated perineum, and I can easily count the years upon my fingers when it was divided upon that question—many believing it was worse than useless (and so it was, and is, unless seconded by good and intelligent surgical nursing), and even secondary repair found many objectors. Lacerated cervix was unknown. A vaginal examination, even, was looked upon as meddlesome, but if, perchance, great suffering forced it, the unfortunate, torn cervix was treated forevermore for "ulceration"—and the poor mother was an unhappy wreck until the harp-strings in heaven twanged loud for the coming of a new angel perfected on earth by long suffering.

Curettage is a safe and ingenious method of cleansing the uterus of unwholesome contents. The vagina furnishes a safe,

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convenient, and natural route for drainage of the pelvis, as well as for the removal of organs and neoplasms. Malignant diseases, if detected early, can be safely removed and completely eradicated by this route. In fact, it is so easy, simple, and safe to remove normal and atrophied uteri and ovaries that the temptation to anticipate disease is too strong for some to resist.

I think I can safely predict that operations to restore the perineum, to correct relaxed vaginal outlet and walls, to repair lacerated cervix, vaginal hysterectomy, curetting, and draining the pelvic cavity by vagina have come to stay.

There are still many other operations which are sometimes done, and may eventually settle down to regular things, and still others not yet dreamed of, that may be done by this short and easy route to the pelvis and abdomen.

The other way of reaching the pelvis is, of course, by the abdominal route, and necessitates opening the abdomen and exposing very delicate and sensitive organs and tissues. Before attempting this the surgeon should consider well his own condition. Kelley says : "The surgeon's physical condition has much to do with the success of his work. I would insist that no man in ill-health is justified in doing abdominal surgery, because he is not in condition to stand the great and prolonged strain upon his attention, with the constant appeals to a clear judgment in rapidly deciding questions of vital importance."

Next, he should thoroughly prepare his patient, and put her in the best physical condition possible to resist the strain. He should make a thorough examination and careful diagnosis, and, anticipating complications, he should prepare for all emergencies. After preparing the stomach, bowels, and skin, all clothing should be so arranged as to give speedy and complete exposure of the abdomen. The room should be heated to a temperature of 75° to 80°, and so arranged that this temperature can be maintained by introducing pure heated air. Restoratives in abundance should be at hand : normal salt solution heated to 110°—strychnia, glonoine, and brandy, with hyperdermic syringes in plenty.

The incision through the abdominal wall should be made

as quickly as consistent with safety. The hand should be gently introduced and the pelvic contents hastily, but carefully, examined. When the course is decided upon, it should be as speedily carried forward to completion as consistent with thoroughness and care, and the abdomen closed with all these precautions. The risks are many more than by the other route, therefore, I say, all operations that can be, should be done via vagina. There are many, however, that must be done through an abdominal incision—large cysts, and neoplasms of any sort ; greatly enlarged or degenerated organs ; removal of badly adherent ovaries and tubes ; most conservative work upon the organs of generation—extra-uterine pregnancy, Cæsarean section, ventro-fixation, and ventro-suspension—in fact, all work of precision within the pelvic cavity must of necessity be done by way of the abdominal route. Of the many operations which have thus far been made I believe the simple ventro-fixation and ventro-suspension will contribute more to the comfort and longevity of woman than all others put together. Before the menopause all uterine displacements can be permanently corrected by suspension, with no risk to the life of the patient or to a possible offspring.

After the menopause ventro-fixation is of itself sufficient to correct, or become an important factor in correcting, many grievous troubles, such as cystocele, rectocele, and procidentia. In this connection I will say that I think Dr. Emerson's bladder attachment to the uterus in ventro-fixation and suspension should be useful in correcting cystocele ; in fact, this seems to me its legitimate place.

Surgery in gynecology is so young that almost everyone who has done much in this line of work can claim some originality.

Its growth is firm and steady, and its present trend is so decidedly to conservatism that I believe it safe and enduring.

Discussion.

DR. G. F. MARTIN: I have listened with pleasure to the doctor's remarks, and agree most heartily with his conservative attitude in regard to the special subject taken up in his paper.

Now, just to refer to his opening remarks. I think that the point he makes there is one of importance, for every physi-

cian or surgeon ought to decide, if possible, in every case, whether it can be best handled by medical or surgical means. There should be no surgical vs. medical in these questions! As well-wishers of humanity we should settle this question by a careful consideration of the pros and cons before we treat the case. I believe most heartily in medicine! I believe most heartily in medical measures, in treatment, but I believe just as thoroughly that there are certain conditions that can only be helped by a well-aimed, successful, surgical maneuver. As bearing out this idea, I would endorse Dr. Hayward's idea for more careful examination. Patients are treated symptomatically too long. Especially is this true in uterine and ovarian difficulties. Cancers of the cervix are thus overlooked, and tumors allowed to grow and adhere to surrounding parts.

The length of time under the anæsthetic, which has been so emphasized by Dr. Hayward, is important, but not half so important as the method of administration. It is the way the anæsthetic is given rather than the length of time. A skilled anæsthetist will do less harm to a patient in three hours than a clumsy one will in one hour.

Ventral suspension or fixation I believe has come to stay, and has become one of our best, most conservative, and easily executed measures for relief. I have seen within a week a new method of carrying out this measure claimed by a Western surgeon. He had modified the usual technique by making the incision high, then running the fingers down through the incision, and passing two stitches from the outside through the abdominal walls and body of uterus, slightly scarifying the same, and then drawing the uterus against the abdominal wall instead of against the abdominal incision, as is commonly done. His claims for this operation were that the uterus was fixed on a stronger point further from the incision, which need not be larger than to admit the forefinger, and in that way the danger of secondary ventral hernia was prevented. I think the weak point, if any, is in the incision, and the uterine body makes a natural strengthening plug for this; so, while there seemed to be some strong points to his suggestion, the second claim seemed to me a weak one.

DR. J. W. HAYWARD: In regard to the preparation of a patient it requires much longer to prepare one person than another. Some are anæmic and suffering from a depleted nervous system; they would require a longer time than a full-blooded person. It is safe to say that most people who are suffering from gynecological troubles requiring operation are neurotic. I should not wait for restoration of the nervous system, if I could get the blood in a fair condition.

There is one point I wish to emphasize, which has not been touched upon in the mechanical treatment of displacement. It seems to me if tampons (and I agree with all that has been said to a certain point) were used for a considerable time, the result would be a distention of the natural supporting tissues of the uterus and a resulting relaxation, which it is difficult to overcome and sometimes subjects the sufferer to an operation which might not be called for, if the radical operation was resorted to at an earlier time. I can hardly consider the vagina being packed for a year without doing mischief. As far as I am concerned, I must say that my custom with my own patients is to restore the misplaced organ and to pack for a short period and not to use the pessary for any length of time. The pessary has not been, in my hands, a successful instrument ; that is, it has failed so many times that I have concluded that I am a bungler in its use, or its utility is exaggerated by others. I take a shorter cut to health and do the radical operation of ventro-suspension at once. There is a good deal to be said for that operation which has not been mentioned. It not only relieves the sufferer by keeping the organ in its normal position, but it has in quite a number of instances removed sterility. I can recall now several cases where that result was accomplished. Just at this moment I can recall three who went through the period of pregnancy and gave birth to three healthy children, where previously there had been no possibility of becoming mothers.



MEDICAL TREATMENT IN GYNECOLOGY.*

BY ELIZA B. CAHILL, M. D.

It is to the development of modern surgery that we owe more satisfactory medical treatment in diseases of women. Before the advent of the surgeon of to-day the woman with almost any type of pelvic disease (save non-inflammatory displacements) was doomed to a chronic invalidism little understood by the medical profession and the laity, and exceedingly poorly treated. With the advent of better septic methods, and the understanding of inflammatory causes, and their pronounced local and reflex results, came the beginning of relief of sick and suffering women. The practitioner of medicine, however educated and intelligent and successful, looks to the surgeon as his superior, inasmuch as the latter is capable of doing what the physician cannot, even if he would, from his different development, environment, and natural ability.

When first we found that our patients suffering from metritis, salpingitis, and often the concomitant ovaritis and peritonitis, could have all this local disturbance successfully removed, with the mortality practically none, our relief was great, and we urged upon our patients, thus suffering, the assistance of the surgeon with the cure we believed would surely follow. If the patient brought to our notice the fact that somebody she knew had developed certain unfortunate traits, mental or physical, after ovariectomy, we repudiated it, as we still do. We answered her that she would be in the hospital but four weeks or five, or at the most six weeks; that she would go to her home and steadily regain her strength, and in a few weeks be quite herself again and in better condition than for many years. That phraseology is very familiar to me; I have said it many times and still say it, but not so quickly as I used, and instead of using that long little word "cure" I say "better," and I tell her that nature will require from one to three years to adjust herself to the forced interruption of the menstrual mechanism, and it will usually require

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all of that time to make recovery. Why the remote nervous effect should be so marked from the removal of parts which certainly are performing their function most inadequately and unsatisfactorily, and have almost nothing really normal about them, I do not know. But I do most positively know, from not a few cases of this sort extending over the last fifteen years, that the nervous system is exceedingly slow to recover from the major surgical operations, and that the patient who leaves the hospital surgically cured is in many instances not even a different kind of invalid. While it is true that there seem at the time, and in the immediate months following, fewer nervous symptoms if all the ovarian tissue be removed, it is not true a year following. The recurrence of menstruation is a potent factor in the lessened remote nervous depression following these major surgical operations upon the pelvic viscera. And thus I present a plea for the medical treatment of these pelvic cases, relegating to the surgeon always the mechanical injuries, pus cases, and tumors, which by pressure upon viscera are inducing mechanical injury, or causing chronic peritonitis by inflammatory change. I will never again send the neurotic patient for surgical interference in a case other than the above, hoping that, because she knows she has a pelvic difficulty and because her mind is imbued with it, removal surgically will relieve her mentally and thus cure her.

It will rarely accomplish this purpose. But after removal she will have a train of symptoms quite as great as before, and harder even for the physician to combat. It is rare indeed to find a balanced man or woman, and certainly the woman who has perhaps not naturally an even temperament can become nervously distorted by continuous local or reflex symptoms, from whatever cause. It is the physician who knows these cases from day after day, week after week, and month upon month of service. When we take our case to the surgeon we are disheartened with medical treatment, and we want that patient operated upon, and would not endure a suggestion of other than surgical aid. And the surgeon does his work faithfully and scientifically, and has no further part in the case. Thus, it is the physician who is responsible for these patients; the physician who gets discouraged and exhausted, sooner or

later, according to his temperament, and who of us does not often feel like a sponge wrung dry by the patient who after a reasonable time does not even improve. Nowhere does history more fully repeat itself. We all have these cases; we all become disheartened; we all feel that we don't know what to do next; we sometimes all fail and as surely sometimes we all do good. The neurotic patient with marked effect and a most minor cause has often, after long and faithful care on her part and on mine, hurt my self-love mightily by falling into the hands of an osteopath, or a Christian Scientist, or some other suggestive treatment to which she has responded surprisingly and considers herself an exponent of the new treatment, and yet, in several such cases, after a year or more of healthful activity I have examined these same cases and have found the local disturbance even greater than when I saw it last! But if we physicians do not successfully specialize suggestive therapeutics, why object if somebody else does—even though he fails to properly name his treatment?

The real case, the case that does not present the mental element as a primary factor, does not yield to suggestive treatment alone. And we see often a nervous, irritable sick woman, with a uterine displacement properly corrected, recover her balance and become again the helpful member of family and society.

How often do we see the case of endometritis, metritis, salpingitis, ovaritis, and retroflexed uterus, yield gradually and steadily to intelligent local treatment. Many cases of endometritis, with all its train of symptoms, yield to the local application of iodine and carbolic acid—equal parts—made by application through the os to the endometrium, and quite as successfully as by curettement. Cases of retroflexion with a displaced, tender, and enlarged ovary will be frequently most successfully treated by placing the patient in the Sims position, and after reduction of the uterus digitally, packing the posterior cul-de-sac firmly with tampon after tampon until the organ is held in position. It seems immaterial whether belladonna, eucalyptus, or any other local application is used, provided the tampons are wrung out in sterilized water

so that they will not change position at all, and the first one or two dipped in boro-glycerine—the better to deplete the congested tissues. I have treated these cases with medicine (other than the boro-glycerine) and without, and they do equally well, provided the uterus is put as nearly as possible in normal position and kept there by enough tampons to support it; these to be kept in three or four days, and removed only for a cleansing douche, and then to again pack. Old adhesions will thus be broken up, the ovary carried back to proper position, and with better nourishment lose its sensitiveness, and in a few weeks or months a pessary can be successfully fitted, and the case practically cured. You say a pessary demands care—yes, but it is simple—and, in many instances, in from one to two years it is satisfactorily abandoned, while abdominal fixation is not more successful. Cases of inflammatory process in the adnexa, without displacement of the uterus, seem to need more absolute medical treatment like hydrastis, eucalyptol, arnica, bell., as indicated, and if no subinvolution exist, these prepared in cerate, or petroleum oil, are more satisfactory in my hands. Treatment frequently enough to keep the result obtained; tampons enough to keep the medicine on the part, and to exert some local pressure. General treatment—gymnastics, electricity (static, faradic, or galvanic), as may be indicated. Good simple food, articles of which are contra-indicated or not by the urinalysis which should always form part of the examination of each new case, with the indicated homeopathic remedy for the often very pronounced reflex disturbances in various parts of the body, will afford the patient much relief and often lead to symptomatic cure. An abdominal bandage will aid many patients whose abdominal muscles are heavy and flaccid, and, with the tendency these patients have to grow stout, the increased abdominal weight is often a serious factor in causing discomfort in standing and walking.

Will our patients stay with us during these weeks or months of treatment? Usually, if they come to us after we ourselves have obtained a practice.

Physicians, perhaps more than all other professions, feel the insecurity of confidence now that the family physician is pass-

ing. And the world is a very crowded place, and educated ability is no longer rare. But a frank confidence between patient and physician, an explanation of the case and why so much time is required for successful treatment, indeed, treat the patient like a sensible human being, and usually, if she is not primarily a neurotic, and sometimes even if she is, she will do her part with faithfulness, and will aid her recovery the more as she gains personal confidence in the physician. Give the sick and the well woman something to do. To the busy housewife some outside interest. She will care better for her family with a thought to bring them. To the already busy person some systematized plan of work, some outing, something different from the usual routine, for we live in a world of change—the desire and perhaps need of something different, even if it is not as good as the old.

Let us do more than relieve our patients locally and let us do it by medicine, mental, moral and physical; continuing in the great mental and therapeutic advance of the last decade, until we shall not fail to cure our patients through lack of intelligence and of perseverance, until we are more and more the successful diagnostician and physician who has no superior.

Discussion.

DR. ALONZO BOOTHBY: One or two points in Dr. Cahill's paper I should like to emphasize and remark upon.

Physicians sending patients for gynecological operation have been in the habit of promising too great results; for it is an unchangeable fact that, while operation removes the diseased conditions, and by so doing leaves the patient better able to combat with renewed vigor the causes of these conditions and stand a better show of recovery, it cannot always remove the causes themselves. It is true that physicians are not sending patients to a surgeon for operations of this nature to such an extent as of yore, but care should be taken by those who do, not to promise too much in the way of results.

As to this pelvic disturbance accompanying nervous cases, my belief is that some cases are nervous, the pelvic trouble being secondary. Certainly, in such cases, surgical interference would be an injury to the patient, and, in many of them, time and care are required to determine the source of the trouble. If in doubt, and you will be sometimes, you should treat the case; but, if the disturbance is due to local trouble, and nervous symptoms supervene as the result of that local

trouble, then an operation is generally indicated, even when a good deal of nervous disturbance is involved. I think these points should be considered by physicians as well as specialists. In which event it follows that some cases will require operation, while others will be cured more effectively by treatment.

DR. PACKARD: I wish to commend particularly Dr. Cahill's attitude in regard to uterine displacement. It has always been an unpleasant thought to contemplate suspending the uterus from the abdominal wall, and if records can be believed, it has resulted disastrously to many women in the reproductive period of life. These are cases for the office gynecologist. He makes a specialty of treating office patients, and these, of all cases, ought to be amenable to gynecological treatment. A large number of such cases are turned over to us surgeons and we feel obliged to operate, because they have been told that they are incurable otherwise. They have been told that they will be invalids for life, and feel unable to undergo the expense of long treatment, and seek to be cured at once. Of all things, patients who seek such an operation as ventral fixation should be told of the unnatural arrangement which results, and of the dangers accompanying pregnancy. I believe that the majority of cases of malposition of the uterus, unaccompanied by adhesions, can be cured by office treatment. Those which are bound down by adhesions can be remedied in no other way than operation for breaking up the adhesions, and shortening the round ligaments, or ventral suspension or fixation.

DR. A. K. P. HARVEY: I do not know that I can add anything of special interest. It seems to me you are touching upon a most important point to our patients, if not to physicians and surgeons. The day has gone by for the slaughter of the innocents. Fifteen years ago, when I was a student in Chicago, and later in New York, an ovary stood no chance whatever, whether diseased or not. More than one uterus and many ovaries were removed in a perfectly healthy condition. A surgeon's capabilities were estimated by the number of ovaries—diseased or otherwise—which he removed. Now, with regard to displacement of the uterus, when is a uterus displaced? What is the normal position of the uterus? As a general practitioner taking a deep interest in this subject, I ask for information, and am waiting to be instructed. How many cases have come to your office and to mine, saying, "Doctor, my womb is one or two inches out of place, and I know it to be so, for Dr. A. and Dr. B. both told me so." Now it seems to me that an organ so freely movable as is the uterus, capable of sufficient distention to contain a ten-pound child and a gallon of liquid, can hardly be said to occupy so permanent a place in the pelvis normally as to admit of such nicety. Oftener the so-called displaced uterus is in the exact condition described

in Dr. Cahill's paper, namely, one of acute or passive congestion. I believe this to be a most important point which should be considered more earnestly by us. Thousands of uteri and ovaries have been removed when the simple treatment recommended in the paper under discussion would have obviated such a mutilation. I commend Dr. Cahill's paper to your careful consideration.

A MEMBER: I am growing more conservative with regard to operative interference. It takes a great deal of care and patience to rectify these cases, but it can be done. The nervous symptoms which follow removal of the uterus and ovaries last longer than we have been led to expect. By well regulated and adjusted treatment we certainly can overcome the uncomfortable symptoms, and help our patients marvelously.

DR. ELOISE A. SEARS: This discussion is swinging round so that I can get my fad in. I believe we do not pay half enough attention to dress. I rarely find a patient with displacement who is properly dressed. If I can get her to change her mode of dress I go ahead with the treatment, otherwise it is useless.

DR. MARTHA E. MANN: What is the proper form for one woman is not good for another, and what is good for one woman is good for all is not true. One woman is not comfortable in a dress another assumes, and never would be. I do believe there is something in dress, but not everything. A general law cannot be laid down for all.

DR. ELIZA R. CAHILL: I think that, perhaps, Dr. Sears feels more strongly about women wearing corsets than I do. If my patient wears a properly fitted corset, a corset not tightly laced, I think it is often a benefit. as far as the straight-front corset with proper gores is concerned, I think, if worn in a slight displacement of the kidneys, it will be found to be an excellent abdominal bandage. This corset, with the eye-holes divided into three parts, one lacing from the top one-third down, one from the bottom up one-third, and one at the waist, the middle third left absolutely loose, I have found an excellent abdominal support. I do not feel like taking the attitude that every woman should go without corsets, because stout women need support and are more comfortable with it.

DR. AMELIA BURROUGHS: I think we make a great mistake not to instruct our patients how to control their muscles, and the corset will be an assistance and not a hindrance in helping them to do it.

DR. J. F. WOOSTER: Corsets are all right, but the skirts, heavy underskirts, cause more trouble, and their weight should be supported by the shoulders and not the hips.

DR. BOOTHBY: About displacement, I shall have something to say later. In regard to corsets and dressing from the shoulders, that is, not having the skirts rest upon the hips, I do not agree with the last speaker. If it can be done, you are saving a good deal to a weak-chested woman, by relieving her shoulders. I have demonstrated that myself. The natural width of a woman's hips, braced and held by the steels of a properly fitted corset, seems, to me, to be expressly provided for the support of at least a portion of her garments. If such a corset is not provided those garments which of necessity must be secured around the waist will drag upon the abdomen, and in cases where the latter is abnormally protruded, even those garments which are secured from the shoulder will contribute a certain portion of their weight to that already overburdened region.

DR. AMANDA C. BRAY: Nine-tenths of the women sit in the most fearful positions. If we can teach young girls to sit, stand, and walk correctly, we will have a good safeguard against uterine troubles, and also a most helpful accessory in correcting such conditions. I believe the cause of many of the ills that women are subject to arises, in the beginning, from incorrect positions acquired in youth and early years.

A woman can stand longer, walk a greater distance with less fatigue, and perform more labor, if she habitually preserves the erect attitude. When a woman sits or stands in an erect position, the weight of the intestines comes upon the bony pelvis, which is placed obliquely in relation to the trunk of the body and intended for a support for them, while, if she sits in an incorrect position, the weight of the abdomen comes directly upon the generative organs and appendages, pushing them out of position and stretching their ligaments. Added to this bad position is the rocking-chair habit, to which many women are addicted. After a woman has done a hard morning's work, probably standing two-thirds of the time with the abdomen thrown outward, resting first on one foot and then on the other, she takes to a rocking-chair in the afternoon and rocks to and fro, to and fro, so that, in addition to a strained position of the abdominal organs, she keeps them swaying in constant motion for hours.

I believe, if you can get your patients to sit, stand, and walk properly, you will gain as much as by change of dress; and a girl who knows how to stand and walk well will generally have her clothes made so that she can retain that erect position. This leads to another factor—that of deep breathing. When a girl stands correctly she must of necessity breathe properly. So I make a plea for physicians to instruct their ailing patients to stand and sit correctly.

ELECTRICITY IN GYNECOLOGY.*

, BY CLARA E. GARY, M. D.

In gynecology, electricity has a place that can be occupied by no other therapeutical agent. Claims have been made for its efficiency in certain diseases which have failed, but that has been because of one of two things: either the physician in charge has not governed himself, or herself, by certain fixed rules, or cases have been attempted beyond its now known jurisdiction. A cure in every case is not assured, but when any measure has been efficient in at least seven-eighths of the cases treated, as recorded by one physician, naturally we would call it a success; this has been our experience after nearly sixteen years' hard work in this direction. However, it has its limit as well as any other remedial agent, and should not be used in obscure cases which have baffled diagnosis, both physical and electrical, unless it is with the distinct understanding that the treatment is experimental. It has been difficult to obtain knowledge in this direction because, until very recently, the text-books have been silent upon the subject of electro-physics and electro-physiology.

The field of electro-gynecology is limited at the present time to certain diseases which we mention with confidence, giving indications and contra-indications, with treatment and our reasons for administering certain currents. The diseases which we have found especially amenable to the influence of electricity are chronic endometritis, pelvic inflammatory exudates, some varieties of fibroid tumors of the uterus, amenorrhœa, dysmenorrhœa, and displacement of the uterus.

First, we will consider the action of different currents, with their indications and contra-indications; then the diseases, with the electrical remedy and the method of applying it. It is our custom to use galvanism, faradism, and the sinusoidal currents in the before-mentioned diseases. In galvanism, the polar effects are important, also the electrodes employed. A current of sufficient strength will produce at the negative pole an

* Read before the Massachusetts Surgical and Gynecological Society, December, 1901.

alkaline caustic effect; this pole is also a vaso-dilator and an irritant to the sensory nerve. At the positive pole, a strong current will produce a dryness of the tissues and also an acrid, caustic effect; the metal of which the electrode is composed will become affected by the acid pole, and the salts of the metal will be produced, which in turn will affect the tissues and also destroy pathogenic bacteria; this pole is a sedative to the sensory nerves, and a vaso-constrictor. Galvanism is a tonic to the whole system. The faradic and sinusoidal will contract striped or unstriped muscular fibers, will stimulate nutrition, and will impart tone to the general system.

First, endometritis, which we all understand is an inflammation of the membrane lining cavity of the uterus. In the first stage, where we have turgescence of the vessels, uterus enlarged, sensitive, and low in pelvis, or where the discharge is purulent, streaked with blood, acrid, and irritating to the cervix; we use the sinusoidal current to obtain a sedative effect. The patient should not be conscious of any discomfort, the current should be started gradually and should be turned off gradually before the electrode is removed; it should only be employed a little while at a time, that the patient may not be fatigued. In the hospital it can be used twice a day bipolar. The galvanic current is not tolerated until inflammatory conditions are over. Then we come to the chronic condition; we use a pure copper intra-uterine electrode, large enough to fill the uterine canal, in order that it may come in contact with the whole of the diseased surface at one time. This electrode is attached to the positive pole and held stationary. Place the indifferent electrode upon the abdomen, the current should be turned on gradually and turned off gradually, using not over twenty-five milliamperes about three minutes, increasing the time every second day until five minutes are occupied. It will be understood that the current must be strong because there is less resistance, on account of so much more moisture within the uterus than there is on the surface of the body and skin.

Planet, first assistant to the late Apostoli, and Gautier of Paris, have used with success in these cases a platinum electrode wrapped about with absorbent cotton and dipped in a solution of iodine of potassium 1 to 10; the electrode is then

inserted into the uterus and attached to the positive pole; chemical decomposition takes place; the iodine is set free at the positive pole, and the potassium at the negative pole; the iodine penetrates into every depression, and into the deep submucous structures; we use heavier currents in these operations, as high as 80 milliamperes. Aside from the cauterizing effect, we have the effects of the positive pole, which are peculiar to itself, as before explained. Sometimes a positive electrode cannot be removed without using force, if so, reverse the polarity for a few minutes until the softening effect of the negative pole is evidenced. Constitutional measures are important, and remedial agents should be employed at the same time.

Pelvic Inflammatory Exudates.—It has been our custom to use galvanism in these cases where there are old inflammatory exudates, thickened broad ligaments, adhesions, old exudates surrounding the uterus, carefully avoiding cases where there is encysted pus; we use the negative as the active electrode, covering it with moistened absorbent cotton and pushing it into the posterior cul-de-sac, or intra-uterine or rectal electrodes as the case may require, using 25 to 40 milliamperes according to tolerance for five minutes; the treatments of these cases sometimes spread over six months, but are most gratifying in their results. It may be interesting to note here that Apostoli advocated the use of electricity in active inflammatory conditions of this kind, and his skillful assistant Planet still carries out Apostoli's idea. The treatment consists of the bipolar intra-uterine application, faradic current of tension with occasionally a little galvanism. They claim it is criminal to let the disease alone and allow it to run its own way; we have used it a few times with varying success.

Amenorrhœa.—When there is considerable development, but not enough to come up to the standard for perfect development, and the patient is still young, much may be done to assist nature, also in amenorrhœa due to fright, grief, or a cold, when patient comes to you in an irritable and excited state, with full pulse, high temperature, sleeplessness, no appetite; rest and remedies may relieve the symptoms, but the amenorrhœa continues. In such cases we find electricity valuable,

using the negative electrode intra-uterine with positive clay pad on the lumbar plexus, 30 to 50 milliamperes. It is our opinion that faradism will not produce the menstrual flow as quickly as galvanism, but if galvanism produces disagreeable sensation, we often give a light faradic current of tension for two or three minutes after the application of galvanism.

Dysmemorrhea.—We will consider only two kinds of dysmemorrhea—the obstructive and membranous. Whatever may be the difficulty, whether an accumulation of menstrual blood above a slight stricture or whether it is an obscure nervous action, relief can be obtained by electricity. Strictures of the uterine canal usually occur at the junction of the neck with the body. It takes longer to dilate the internal os by electricity than by other means, but it is accomplished with less pain, and is lasting in its effects. The method is to introduce a bulb electrode of moderate size, attach to this the negative pole, positive pole on the abdomen; press the bulb electrode firmly against the contraction, using 10 to 12 milliamperes, keeping up a firm pressure against the stricture until it passes through it. In two or three days give another treatment, using larger bulbs, and so on until the stricture is removed. Should the dysmenorrhea still remain, use positive intra-uterine galvanism, copper-electrode, negative clay electrode on the abdomen twice a week until the patient is relieved.

Membranous Dysmemorrhea.—It is usually the custom to dilate the internal os, as before described, but the positive pole should have its main effect on the interior of the body of the uterus, on account of the hemostatic effect of the positive pole. Our method is to commence as soon as possible after menstrual flow, and to attack internally the anterior and posterior walls of the uterus; the current should be strong enough to produce cauterization, using 80 or 90 milliamperes. Move the electrode about so that the entire surface is reached; one treatment is sufficient, and then wait until after the next menstrual period.

Displacement of the Uterus.—In these disorders both the faradic and the galvanic currents may be used, according to their indications; bipolar faradism for strengthening the uterine supports and galvanism to exert a tonic curative effect

upon the uterus and its lining membranes, which are usually inflamed in these conditions. Overcome the rigidity of the uterus in all cases with a negative electrode, then use the positive electrode for tonic effect and for the cure of endometritis. Use the faradic current first through the fine wire, and then, second, through the coarse wire. By following out the simple rules laid down in the first part of this paper, of course with variations, according to each peculiar case, the operator will find electricity exceedingly useful in all displacements of the uterus and their accompanying disorders.

Fibroid Tumors of the Uterus.—As fibroids were first successfully treated by Apostoli, we will speak of his method as given to us by his assistant Planet. Apostoli did not believe in interfering with fibroids, if there was any pain or any hemorrhage. He considered that the menopause settled the matter, and if the patient was thirty years old or thereabouts, and there were pain and hemorrhage, he considered it difficult to bring her to the menopause; on the other hand, if the patient was thirty-eight or forty years old, nearing the menopause, he considered that electricity was sufficient in certain cases, thereby avoiding an operation. Apostoli's method was as follows:

Positive electrode introduced into the uterus, negative clay electrode placed upon the abdomen, positive electrode composed of platinum; use it without introducing it through a speculum. First treatment: Start the current slowly, and increase gradually to 50 milliamperes for five minutes; shut off current slowly in order to prevent contraction; use care, in removing the electrode, not to burn the parts; compel the patient to rest in a recumbent posture for two hours after the application; should hemorrhage occur the next day, oblige the patient to remain in bed until hemorrhage has ceased. Never operate more than three times a week; increase the current each time, if the patient can tolerate it, until 100 or 150 milliamperes are reached. We consider that typical cases for the successful treatment of fibroid tumors of the uterus by electricity are those of the interstitial variety, for they are usually hemorrhagic, and the hemorrhage usually occurs as an exaggerated menstrual flow. All methods now in use of treating fibroids

are modifications of Apostoli's method, which has already been given in detail.

There are many other pelvic disorders which are amenable to electrical treatment, and bring about gratifying results to the operator.

Discussion.

DR. ALONZO BOOTHBY: I shall have to preface my remarks by the statement that Dr. Gary knows a good deal more about the use of electricity than I do. She has put the matter very satisfactorily before us, and while I believe that electricity is a therapeutic agent of value in the treatment of gynecological cases, I want to say a few words upon the use of electricity in displacement of the uterus. Now, I agree with her that electricity is an aid in cases of displacement, but she has not given us the preliminary treatment quite as completely as might be desired. If you were going to use electricity in such a case, Dr. Gary, you would first right the uterus, and then use electricity, not to replace it, but to retain it in position? [Dr. Gary: Yes.] Now Dr. Gary has said that these displacements are frequently accompanied by inflammatory conditions. To me it seems that the inflammatory conditions are very often the seat of the trouble and that, furthermore, they are the cause of much disturbance throughout the entire system.

There are various methods of dealing with a displaced uterus. Packing the vagina to hold up the uterus is a temporary method, not a permanent one. There must be some other means of retaining it in place. We find in these cases of displacement that the uterus is quite flabby and that, after it is righted, it fails to stay. If under these conditions you introduce your electrode, and use the proper current, the stimulation to the uterus (it seems to me, and I base my claim upon personal observation and recorded cases) will encourage it to stay in place, for the simple reason that electricity tends to remedy the weakness that induced the displacement. Many cases can be treated in this way. It is true that in some cases the pessary can be used, but what an awful thing for a woman to wear forty or fifty years, or, for that matter, two years! The pessary will retain the uterus in position, but instead of strengthening, it stretches the parts and you are more than likely, upon its removal, to have a return of the trouble. The thickening of the parts may hold the uterus in place, but in that event you have a difficulty almost as bad, if not worse, than your original displacement.

Ventral suspension is a desirable thing in a certain percentage of cases. Dr. Hayward's position is correct, when he asserts that suspension is not, of necessity, a serious obstacle to child-bearing. I now have in mind two or three cases to add to Dr. Hayward's, in which pregnancy was accomplished after suspension, with no serious disturbance. In fixation the uterus is raised a little above its normal position; it is the fixing of a point that should be movable. Ventral fixation will cure in almost all cases, and although you have, to a greater or less extent, disturbance or inconvenience during pregnancy, you avoid the use of pessary and packing, both of which are extremely undesirable. I can testify to a number of cases where relief was not only positive, but permanent.

With reference to what Dr. Martin has said, that the incision should not be low down, on account of the downward pressure producing secondary ventral hernia—everyone who has treated ventral hernia would agree that it does not occur at the lower angle of the wound. I do not believe there is necessity for any such extensive cross-cutting of muscles and fascia in making a suspension. However, before you have decided conclusively upon suspension, adopt Dr. Gary's suggestion and give electricity a trial.

DR. J. K. WARREN: I have been exceedingly interested in Dr. Gary's paper. I think the trouble with the use of electricity in the past has been the haphazard manner in which it has been used, many physicians seeming to think that it mattered little how, when, or where, it was applied. A lack of sufficient knowledge to select suitable cases and apply it properly being the reason why they so often fail to get the desired results. There is a great difference in the susceptibility of patients to electricity; some requiring much stronger currents than others, while the strength of the current must be varied also, as to whether you desire the primary or secondary effect. In speaking of the strength of the current used, it makes a vast difference whether we mean the current generated by the battery, or the actual current passing through the system, and I suppose the doctor had reference to the latter. [Dr. Gary, Yes.]

I believe that in the galvanic current we have one of the best, if not the best, means of treating a large number of pelvic troubles. I know of nothing that will so quickly relieve or cause congestion of uterine and other pelvic tissue, as the galvanized current. Skill and experience are needed to secure the best results. The amount of suffering caused by uterine displacements is not at all in proportion to the amount of displacement, but is due to impeded circulation and nerve pressure. Someone here this afternoon has made the statement that he did not know what the normal position of the uterus is.

I believe its normal position to be anywhere in the pelvic cavity where its owner can wear it with ease and comfort.

DR. GEO. R. SOUTHWICK: There is a great difference in gynecological methods and the battery used. It is very essential that the current should be uniform and even. The ordinary batteries are inadequate for this purpose. I am certain that I should hesitate a good while before I should care to use a current of 80 or 90 milliamperes in the uterine cavity. The galvanic current used in uterine displacements will improve the circulation, promote muscular contraction and diminish the size of a large, congested uterus. I hardly think it could be expected to play a very important point in restoring the uterus to its normal position, and keeping it there.

In regard to ventral suspension I have had four cases of pregnancy after the operation, in which pregnancy has gone on to full term, and labor ensued, and in every case labor has been unusually easy, not needing forceps. Patients have spoken of their comfortable position. In ventral suspension the real question is not merely the suspension, but the suspension of the uterus in the correct position, because, if fixed too high, it is often a source of discomfort and more liable to give rise to complications in labor. The uterine end of the suspensory band should not be posterior to the fallopian tubes, and the ventral end should be placed much nearer the symphysis pubis than is commonly done. Any strain in fixation or suspension to the abdominal wall is injurious. Great care should be taken to obtain a correct position of the uterus. Hernia is a very poor excuse, and I do not see how it is possible to get hernia through an incision only three-quarters of an inch long, which is ample in most cases, if the fascia is properly united.

DR. JOSEPH CHASE, JR.: I live in a locality where the luxury of ventral fixations and suspension cannot generally be indulged in, and I represent a clan of physicians who seem to be fast going out of date, in fact they seem to be among the "has beens"—I refer to the country general practitioner—and, as many of my patients cannot afford to consult specialists, I am forced to meet the requirements of such cases as best I can. Consequently, I have dabbled some in electricity, though I feel that I know little or nothing about it; I can testify to the success of its use in almost all the recommendations of Dr. Gary's paper, though I have not had good success in its use in displacements; probably due to the faulty way in which I have employed it.

From the trend of the remarks here I have gathered the impression of a general feeling against the use of the pessary. This does not agree with my experience, and I wish to testify to its efficacy.

At first I had little or no success with it and cast it aside, only to resume it again and with much better results. I begin the treatment with the glycerine tampon; and just here I would say, with Dr. Hayward, there is some danger in packing the vagina, especially by the use of absorbent cotton, which readily packs down in a firm, almost unyielding, mass; while the absorbent wool is quite free from this objection, it being light and springy, and assists to hold the uterus in place without over-distending the vagina. Or, should cotton be used, I prefer the ordinary raw cotton, made aseptic, to the absorbent cotton; it being less liable to mat together and is quite elastic. By the use of the tampon the congested uterus is depleted, and it is true also that the galvanic current as suggested is a great aid. After a continuance of this treatment to the desired point, I make use of a properly fitting pessary; though quite difficult at times, it can be done by the exercise of perseverance and ingenuity. I cannot well at this time describe to you just my method of fitting the pessary, but will say that, with me, it has been a success. This does not mean the continuous wearing of the instrument, except in such extreme cases that only surgery is the remedy, but is out of the question owing to the age, physical condition, or other circumstances of the patient; but these are not the class of cases of which I am speaking. I refer to cases, and there are many, which are amenable to such treatment, and should not require the surgeon; and, to resume, I invariably am able to remove the pessary, and discharge the patient practically cured.

During the time of wearing the pessary the patient is kept under treatment with local applications, and electricity when called for, as well as medical, also gymnastic exercise; posturing, etc.

I would say, in closing, that any and all the procedures spoken of here are, to my mind, of primary and paramount value, according to the individual case.

Ventral fixation or suspension is all right, and so also is the use of electricity. The pessary, too, is as important a factor as either, in its proper sphere; and by its use I have rendered a more frequent resort to surgery unnecessary.

DR. HAYWARD: Has anyone had experience in the use of Parke, Davis' Extract of the Suparenal Capsule for the purpose of reducing congestion of cervix and vagina? It acts quickly in the mouth and throat, and I wonder what its effect is upon the mucosa of the organs of generation.

DR. CLARA E. GARY: It is true, as Dr. Boothby suggests, very little has been said regarding displacements of the uterus, because this portion of the subject demands more time than should be allotted to one paper, but the few simple rules men-

tioned, regarding indications and contra-indications, will, if observed, lead to gratifying results.

I wish to emphasize what Dr. Warren has said in regard to the manner in which electricity is used. A good battery is necessary, but a knowledge of the use of it is very important. The operator should understand not only his tools, but how to apply them to the different cases; and when understood, the currents should be given regularly, and not in a haphazard manner. This is a difficult subject, and even after years of hard study one feels how much more there is to learn.

Dr. Southwick has made a good point. The current should be uniform, and you cannot get that with a small, cheap battery.

In using electricity I do not exclude the use of the tampon or the proper remedy, but I use electricity to make the tampon and remedy more effectual, and find that the pessary is seldom needed.

DR. H. A. WHITMARSH: Unexpectedly invited to discuss this paper, I would add but little to what has already been said. As to defining the normal position of the uterus, however, we must agree that there is a normal position for this organ; also that the normal may vary considerably in different individuals. While ante-displacements may less frequently need correcting, any considerable retro-displacement should be corrected, even if no discomfort for the time be felt. A malposed uterus, comfortable to-day, may not be borne comfortably to-morrow. The feelings of the patient are not a safe guide. Adhesive peritonitis may work sudden mischief that should not have been possible. I have thus challenged the wide latitude given here to-day, in defining the normal position of the uterus; fearing that it may lead some to infer that uterine displacements can be ignored.

But I wish especially to commend as a whole the papers of this session for their modest and conservative spirit, and absence of flights of sentiment. We have been treated to practical facts, not fancies, and have felt that the Society was profiting by the personal experience of the essayists, the rehearsal of which should be especially encouraged in a meeting of this kind. Appreciating duly the work of the old masters, we prize, too, the confirmation of their theories in the experience of living men. Our day is one of individual work and independent investigation. We shall be true and worthy followers of the old masters only as we adjust their theories to the light of modern medical science, correcting their errors as they would have done, had they lived long enough.

PROGRESS IN GYNECOLOGY.*

BY HENRY E. SPALDING, M. D., BOSTON.

The new of yesterday is the old of to-day. Theories and methods accepted to-day will be criticised to-morrow, and rejected the next day. Evolution in science is rapid and radical. He who takes his siesta in assured confidence of perfected attainment may wake up to find himself alone, his former fellow-workers dimly seen at the line of his horizon, far away in the fields of fresh investigation and discovery. To-day one need not wait for the mold of time to destroy the burnish and glow of a successful career; he has but to fold his hands in indolent repose, and the work is done ere he is aware.

In nothing is radical advancement, or at least change, more marked than in the sciences of medicine and surgery.

It is now a quarter of a century since this Society was organized, and it is safe to say that, excepting the discovery of ether, the real advance in surgery has been greater during this time than in the entire remaining portion of the century. Not only has operative surgery entered new fields in the human economy, but, above all, technique has so improved as to offer practically assured safety in place of extreme hazard a half century ago. At the beginning of this quarter century Lister was persistently trying, by precept and practical experiment, to teach an incredulous and conservative profession the necessity and efficacy of antiseptics. It was the dawn of a new day in surgery. Compared with what we to-day think is high noon in aseptic surgery it was indeed twilight. But the daybreak must always precede the midday.

Perhaps I cannot better illustrate the first crude attempts at antiseptic surgery than by briefly relating a personal experience.

It was about this time when I did my first surgical operation, a leg amputation, under antiseptic conditions. The steam atomizer filled the room with carbolic vapor. In the instrument tray was carbolized water, and the towel on which to tempor-

* President's address before the Massachusetts Surgical and Gynecological Society, December, 1901.

arily lay instruments was wet with the same. The silk and catgut were carbolized. The preparation of the patient consisted in a one-minute wash of the field of operation with carbolic solution. With my sleeves rolled up, a towel pinned on apronwise, to protect my clothing, my hands given an ordinary washing before commencing the preparation of the patient, and an immersion in carbolic solution immediately before making the primary incision, and I was prepared for the work.

I think I then had my first experience in ligating the arteries with catgut. The dressings consisted first of a strip of freshly carbolized "green protective," a kind of oiled silk, large enough to thoroughly cover the wound, and not large enough to retain the secretions of pus, but rather to conduct them into the outer dressings. We always expected pus, notwithstanding carbolic disinfectants, and we were never disappointed. Next was applied a mass of carbolized lint and linen strips sufficient to envelop the entire stump, and outside of all an ample piece of mackintosh, held in place by a few turns of roller bandage. The dressings were changed daily, but always under the carbolic spray. This was a great advance over what I had been accustomed to see in my student days, but certainly the precautions then used would not be accepted as antiseptic or aseptic to-day. Listerism, with the carbolic vapor, has now given place to better methods, although only thirteen years ago, last May, I witnessed an abdominal section at St. Catherine's Hospital, London, where the carbolic spray was used so strong as to cause great discomfort to those present. Such briefly illustrates the antiseptic surgery of twenty-five years, or less, ago. We may well give homage to Lister, with his steam atomizer and all. He earned highest honors. That it inspired surgeons with a new hope may be learned from Dr. T. G. Thomas, who, after quoting disheartening statistics in 1880, with prophetic vision said, "Let us remember that antiseptic surgery has just dawned upon science, and let us hope that the statistics of the future will show a great advance over those of the past."

For dressing wounds there was then a great variety of methods, notwithstanding the teachings of Lister. Compresses, wet with clear cold water, with medicated water, or

with oil; irrigation, a stream of water continuously flowing over the surface; immersion, the wound being kept in a continuous bath, if the part involved rendered it possible. Perchloride of iron, or some other astringent, to cause the immediate formation of a scab or crust, to slough off and leave a granulating surface, was used by M. Bourgarde, in Paris, as late as twenty years ago. The dry earth dressing, advocated by Hewson Wadding, applied to the raw surface that the bacteria, "unable to get in or out, might miserably perish in its meshes." The open method of James R. Wood, "the stump left entirely alone, just as the surgeon made it in his amputation." "Pneumatic occlusion," a rubber hood with exhaust pump attachment for drawing away secretions and protecting from the air. In these methods and others, needless to mention, there was no attempt made to accurately close the wound, but it was either left wide open, or its edges were brought together loosely, so as to allow free escape of pus. Where surgery caused a breach of continuity of surface pus was omnipresent. To the student of those days "laudable pus" was a familiar term. It would be quite impossible to convince a student of to-day that any kind of pus is "laudable."

In 1881 I went through a New York Hospital with our own Helmuth. We came to a patient from whose abdominal walls he had removed a tumor, some days before. The nurse removed the dressings to an open wound several inches in extent. I remember with what seeming satisfaction Helmuth sniffed the air, and said "that's the divine odor." Divine or not, it was rank. It smelled to heaven. Can we imagine the William Tod Helmuth of to-day being pleased with the sight, to say nothing of the smell, of pus in a hospital ward? It was only about twenty years ago that accurate coaptation of the flaps with sutures and collodion was first urged by Bordeaux; this to follow operations under Listerian precautions.

It was in 1874 that Emmet succeeded in gaining the attention of gynecologists to the fact that what they had been treating as "ulcerated cervix" was, indeed, a lacerated cervix, the repair of which might remedy countless reflex symptoms.

Operations that are to-day looked upon as quite commonplace were then undertaken with hesitancy by the masters in

surgery. Concerning hysterectomy, Bedford wrote in 1867, if we may antedate the quarter century a little, "the operation may in truth be regarded as a prompt passport to the grave and should, therefore, be expunged from the resources of our science." At the same time he advocated the following scientific (?) treatment for ovarian tumor. "Half a dozen leeches should be applied to the tumor, either in the iliac fossa, or in the vagina, once in three weeks; the patient should be freely purged with the saline mixtures, and a nitric-acid issue placed upon the side of the sacrum; the diet to be vegetable." About 1880 surgeons were becoming more venturesome and hysterectomies were done, but with fearful results as compared with those of to-day. Schroeder reported 73 cases with 55 deaths. Thomas reported 7 cases, where he had removed the uterus in whole or in great part, with 3 deaths. Commenting on such results Barnes said, "there is little ground for enthusiastic advocacy of the practice." Emmet said, "Seeing the results of the operation in this country, no surgeon is justified in attempting to remove the uterus for the growth of a fibrous tumor, except as a forlorn hope." Concerning hysterectomy for cancer, the hopeful Thomas said in 1880: "Entirely confined to the uterus, the propriety of its complete removal by laparotomy should be considered. The operation has, however, been thus far too little tested to render an absolute decision with reference to the propriety of its adoption possible."

Dropping the stump into the peritoneal cavity and completely closing the abdominal wound, in cases of simple ovariectomy, was first strongly advocated by Schroeder in 1879. He reported 8 cases with 1 death. Concerning this Thomas said: "The validity of this position is by no means proved," and continued to prefer the clamp and external treatment of the pedicle.

A glance at an operating room of twenty-five years ago and at one of to-day reveals most radical differences. Then whatever change of dress the surgeon and his assistants indulged in, consisted, at best, of a long frock to protect their clothing, rather than the patient, and of some dark material that would not show the soiling of previous use. The patient was made respectably, but by no means surgically, clean. The instru-

ments had been washed after their former use, and were sometimes laid in carbolized water. The surgically clean conditions of to-day are familiar to all.

Antisepsis and asepsis have removed barriers to surgical operations scarcely dreamed of twenty-five years ago, which the twentieth-century surgeon is proving justifiable by actual demonstration.

Thus the evolution of surgery during the life of this Society might be traced with interest from year to year until we reach the masterly work of to-day, but this is sufficient for our purpose.



CHOREA.

W. W. GILBERT, M. D.

As the spring is ushered in by the blustering winds and changeable days of March, so with its advent come to the child the agonizing pains of rheumatism or the dreaded gyrations and muscular twitchings of St. Vitus's Dance. Appearing, as it does, more frequently during the spring months, chorea is especially interesting for discussion during this season. Whether the changeable weather can be considered as an ætiological factor to a disease characterized by irregularity of muscular action with twitchings, with the resulting endocardial changes, and sometimes mental disturbances, is an open question.

Of the various manifestations commonly called chorea we will consider only acute, or Sydenham's chorea. Senile chorea, chronic or Huntington's chorea, convulsive tic, and chorea major are really separate and distinct affections.

As a cause of chorea many theories have been advanced. Some are difficult to apply to the case, considering the limited knowledge of the disease pathologically. Of the sixteen cases herewith presented fright seems to take the lead, and as the majority of cases are girls, over-excitement, or shock to a weak nervous system, may be advanced as one good cause. In each case of fright, with one exception, however, it was in the springtime. These children had been frightened, no doubt, many times before, during the year, with no bad results.

This brings us to the consideration of rheumatism as a cause. Rheumatism per se, as an origin, we very much doubt. But the conditions that bring about this disorder will, we believe, everything being favorable, precipitate an attack of chorea.

The acute infectious diseases, particularly scarlet fever, leave the patients with a fertile soil for choreic manifestations, especially if the heart has been affected; some writers even assigning endocarditis resulting from high fever, pyæmia, or rheumatic fever, as a cause. This is difficult to justify except on the principle of an embolus from the diseased valve being deposited in the brain, and there developing an acute softening, thereby causing the muscular inco-ordination. Other causes, having some foundation in experience, that may be mentioned are: irritation from worms, mental strain at school, worry (over examinations), religious emotion, habitual constipation, and anæmia.

The pathology of chorea is quite obscure, for the reason that death from the disease is quite rare, and when it does occur is often complicated by other affections that render any positive study of pathological conditions merely guesswork. The consensus of opinion seems to be, however, that it is "an expression of functional instability of the nerve centers." This is demonstrated, says Sturges, by the fact that it occurs more frequently in females, and at the time when the cerebral development is at its height. This is partly true, but no one can say whether the error is directly in the nerve center or whether it is in the transmission. Both seem quite possible, especially if we emphasize endocarditis and septic conditions as ætiological factors in producing the pathological nerve disturbance by transmission of embolus, as referred to above.

The symptoms are so positive and prominent, when the disease is fully developed, that it requires no thought as to diagnosis. Usually, when the patient comes to the physician the diagnosis has been made. The onset often causes the parents much annoyance to know what ails their child. She is nervous, peevish and fretful, cannot sit still, she fidgets and fusses about every little thing; the child will drop things, and there will be seemingly no excuse for it. The twitching here and

there will become more pronounced. These symptoms will require the physician to differentiate. The bad cases require no comment except as far as treatment is concerned. The endocardial changes are difficult to diagnosticate in their incipency, and are often overlooked. Great care should be taken to prevent this error. The cases herewith presented will show the duration of the disease to be from two to nine weeks.

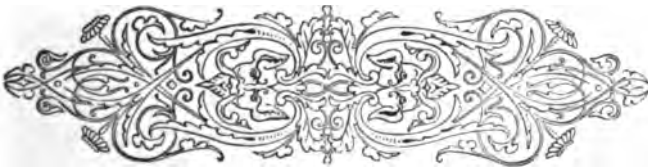
The prognosis as to duration depends on the cause and kind. It is nearly invariably favorable, as to ultimate recovery, in the acute Sydenham variety. We give a résumé of sixteen cases that show something of the age, cause, duration, and remedy.

NAME.	AGE.	CAUSE.	TIME UNDER TREATMENT.	REMEDY.	REMARKS.
Esther B.	3 yrs.	Convulsions	76 days.	Kali phos.	
Maggie McC.	11 "	Heredity	42 "	Agaricine.	
Mary M.	9 "	Not known	63 "	Agaricus.	
Cassie C.	13 "	Cerebro-spinal	63 "	Gelsemium.	Improved only.
Katie B.	7 "	No history	21 "	Ignatia.	
Catherine M.	7 "	Fright ?	17 "	Merc. sol.	
Mamie M.	12 "	Not known	17 "	Child sent to an insane asylum.	
Mamie O'C.	8 "	Fright	69 "	Ignatia.	Very bad case.
Sylvia T.	5 "	Heredity	60 "	Arsenicum.	
Emily D.	5 "	Fright	55 "	Ignatia.	
Gladys C.	11 "	Fright by fall	39 "	Arsenicum.	
Stella L.	9 "	Unknown	50 "	Arsenicum.	
Stella M.	6 "	Brain fever	90 "	Hyoscyamus.	Improved.
Vera B.	10 "	Rheumatism ?	10 "	Arsenicum.	Under treatment.
John F.	10 "	School work	15 "	Strych. phos.	" "
Leo G.	12 "	Unknown	30 "	Arsenicum.	" "

In the treatment of chorea much depends on the proper direction of the mind. A child that is willful and spoiled at home, and is the ruler and manager of the family, will require much longer treatment than the child who is obedient, whose mind is submissive and is controlled by a superior mind. Parents, especially mothers, who think they love their sick, diseased children, are often perfectly unreasonable about making the child obey the most trivial command, even after being warned and entreated, nearly, to be kind to the child by becoming the guide and director of the little diseased intellect that so much needs their guidance. In our experience mothers often become the child's worst enemy. They will neither control nor allow the child controlled. Patients that

have been in a hospital and follow the hospital routine gain much more rapidly than at home, provided they can have the outdoor life while at the institution. Choreic patients should live in the open air after the first wild manifestations have subsided. For these symptoms, restraint in bed will often be necessary to prevent the child from self-injury. The bowels, that are inclined to be constipated, should be regulated every day by means of enema or suppository. The diet should be simple and nourishing. During the severe attack when the child eats with difficulty, is pale and anæmic, Bovinine, or some other nourishing product, should be administered frequently.

For remedial agents arsenicum heads the list, especially when accompanied by heart complications and the origin is other than fright. Arsenicum corresponds very closely to nearly all the manifestations. Ignatia has given satisfaction in cases originating in fright, other symptoms agreeing; also gelsemium. Agaricus and its active principle agaricine have been useful in mild cases with the characteristic twitching of facial muscles; hyoscyamus in patients that are wild and noisy, who have a constant grinning expression. Mygale, strychnia phos., and zincum will be indicated in some cases and may be kept in mind.



INDUCED ABORTION: THE DOCTOR'S RESPONSIBILITY FOR THE LAYMAN'S ETHICS.

BY SARAH M. HOBSON, M. D.

A few of our seniors, possibly, recall the impetus given half a century ago to the study of induced abortion. To most of us it has come as a tradition that destruction of fetal life in the early months of pregnancy, as a matter of convenience, is frightfully common, not only with the unscrupulous, but among women of recognized good moral character.

Midway in the last century the elder Storer of Boston, professor in the Harvard Medical School, delivered to his graduating class a lecture on the disastrous physical results to the mother of criminal abortion, and the injury to both parties of incomplete coition. Publication was suppressed for years in deference to wise seniors, who regarded public consideration of such questions injudicious. But the thought was growing, and in 1858, the son, Dr. H. R. Storer, read a paper before the Massachusetts Academy of Medicine on "Decrease of the Rate of Increase of Population." Dr. Storer claimed, as one important contributing cause, criminal abortion among the well-to-do. The paper stirred up a tempest of indignation and condemnation. The State Society set its seal of disapproval thereon, and discountenanced any fair and thoroughgoing investigation. Publication of this paper also was long deferred, on account of the protest of the majority of the profession. Seventeen years later it was published, with such statistics and corroboration as to make it authoritative both in England and America. Since that time Hale (1867, "The Great Crime of the Nineteenth Century"), Steele (1887, "Criminal Abortion"), Caspar and Tardieu on the legal aspect, are representative of continued activity in this field. But there was some defect in the method. For when Dr. Storer, the pioneer, returned to America, after an enforced rest, and after the first enthusiasm had passed, discouragement was heavy upon him. He said, "The adults of those days are mostly dead, and their children and grandchildren form a new population, with fresh instincts and desires." He ascribed the low ethical ground

to three causes: ignorance of the nature of the crime, apathy on the part of the physician, defects in the execution of the law. Even as late as 1890 the import of literature on induced abortion was: First, Explain the nature of the crime; Second, Be careful, ye doctors, of fetal life; Third, Aid in the execution of the law.

There was little said of the possibility of improving the moral status by teaching the youth as they approached maturity. Compare the earlier writings with the series of papers on "Sexual Hygiene," read before the Chicago Medical Society in 1898, such a book as Scott's "Sexual Instinct," such a magazine article of the current year as Sedgwick's "A Gap in Education." In earlier days the doctors taught that the life of the new individual began when the mother was "quick with child," and this tradition still lingers in many quarters. But biology has declared in no uncertain tones that the independent life of the embryo begins with the union of ovum and spermatozoön, that abortion is the premature expulsion of the product of conception, whether in the first or the sixth month. Clearly, there may be conditions under which abortion is legitimate. The right to individual life depends on the welfare of the mother, the welfare of the child, the welfare of society. The exposition of the first is abundant and able. The second and third are being worked out by sociology, mindful that the fundamental law of the home is generosity, and the foundation of society is justice.

It is for criminal abortion that a greater responsibility is thrust upon the doctor. The law recognizes it as an actual crime punishable by a definite penalty. In many States, practically, the following statute prevails: Whoever knowingly with intent to procure miscarriage of a woman, unlawfully administers to her or causes to be taken, any poison, or by instruments or other means aids miscarriage, if the woman die in consequence, shall be imprisoned not more than twenty years, nor less than five. If she does not die, not more than seven years nor less than one, or fined two thousand dollars. The law is strong enough, but its execution lies in the hands of those who themselves are too often party to a similar crime.

To detail cases illustrative of the present status of ethics

among the laity would be to borrow familiar cases from your notebooks, and to divulge confidences which come to a doctor only out of sheer misery. But you will recognize the types: There is the runaway bride returned to her father's house, who pleads to be freed from the responsibility because she "didn't know what marriage meant;" the hitherto sterile middle-aged woman who wants no uncertainty to destroy her peace and "really is too old to have the care of a baby"; the woman of leisure, who has planned a pleasure trip and "cannot be bothered"; the wife of an irritable husband, who will give her money necessary to get rid of an unwelcome child, but who will not consent passively to await a natural outcome. Then there is the sensible, refined woman, a stalwart religionist, mother of a large family, a woman who has willingly opened her house, first to a capricious aunt, then to an invalid mother-in-law; the wife herself and husband well on to mid-life, ambitious for college education for their boys; but living on a moderate salary, and of necessity doing much laborious work to make ends meet. Such a woman will come fully persuaded that to take the life of an unborn child is a less wrong than to add to an already overtaxed income. She faces intelligently the biological fact and the ethical, and in the conflict between her own individual right and the right of an unborn child, deliberately elects to take the risk to body or soul. The next is possibly more rare, yet common enough to illustrate a class. A poor creature, constitutionally diseased, physically crippled, outcast by her family, marries in the forlorn hope of finding someone to be kind to her; she bears a child or two, crippled like herself, or mentally defective; then is deserted by her husband. After a few months the subject of public charity, the man returns begging her to take up the old life. The alternative is the poorhouse, so she consents. Again he deserts her, and she is in distress over another pregnant possibility.

Barring out the doctor who makes a good living on the convenient monthly local treatment, it is easy enough to answer the selfish request of a woman who wants to be rid of an inconvenience. The girl who marries in haste repents at leisure of more than an undesired maternity. The woman whose alterna-

tive is an outraged wifehood or rupture of the domestic life must face the extreme consequence, and either accept the one as the seamy side of marriage or maintain her position by force of character in face of loneliness and possibly greater physical deprivation. Here lies the explanation of some of the divorces of late life, after the children are grown and cease to be an active cause for passivity. The wife, who out of a reasonably happy life has spent herself gladly for several children and opened her home to invalid relatives can extend her philosophy to one more child, just as she would make the best of a burst of bad temper or calamity of fire or flood. Then, too, her children are endowed with character worth while. They of necessity will contribute something to the world's society. But the defective, the deformed, the diseased victim of horrid lust, what right has she to add to the world's certain misery, or what obligation upon society to assist, to shield, and to nourish any such product? a product at every period of life, from conception to death, fit only for hospital isolation and treatment. This last is a pathological question, to be solved as other pathological problems in abortion, by the consensus of opinion of consultants of recognized probity.

For the rest, what is the responsibility of the doctor? Clearly, first, he must keep his own hands clean. He may not openly for a price destroy fetal life; nor covertly, under the guise of an examination or local treatment, restore a suppressed menstruation nor curette for endometritis or polypi. Second, he must instruct men and women as to the true nature of the crime. From the moment of fertilization of the ovum the new creation comes into his own individual right to existence, under the same laws which control life at birth, at ten or at fifty years. This individual right to existence depends, as already stated, upon the welfare of the individual, the welfare of the family, the welfare of society. The individual right is primitive, and implies the right to live and the right to multiply. Family rights and society rights change from age to age with the evolution of social relations. The foundation of each is distinct from the other. The family is based on generosity and self-sacrifice, society on justice. In the early history of the race, there was tremendous sacrifice of the individual life

to the life of the species. With the higher development of the family life, the psychological satisfaction of the affections controls and in part replaces gratification of physical appetite. While the sociological problem is being worked out in the course of the centuries, the biological fact of destruction of fetal life from the time of conception must be sturdily upheld.

Finally, and most far-reaching, is the instruction given by the doctor to young men and women approaching maturity. Primarily this is the duty of the parent, but until biology or the doctor furnish the parents with correct notions and a vocabulary free from vulgarity, the burden rests upon the family physician. It is probably futile to expect much change in the mature population of to-day. Neither men nor women past thirty are apt to make radical change of habit. But when the children of to-day have grown to maturity with sound instruction in biology and sexual hygiene, when they have trained their boys and girls to right principles of marriage and generation, a seed will be planted whose growth will crowd out this monstrous evil of child-murder.

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REPORT ON A NEW OPERATION FOR PROLAPSUS
UTERI, WITH NOTES OF FORTY CASES.

BY J. INGLIS PARSONS, M. D.

Four years have now passed since the first patient was treated by this method. She has since then been earning her living as a cook, and in spite of continued hard work the uterus still keeps up, although, when she came to the hospital, it was outside the vulva and extensively ulcerated from friction.

The results by this treatment are, on the whole, very good, and better than I expected. Most of the patients have been able to resume work, and have once more become useful members of society.

In the consideration of prolapse of the uterus, we have to regard three main factors: (1) the giving way of the pelvic floor either by rupture or relaxation and stretching; (2) relaxation and stretching of the uterine ligaments; (3) increased weight of the uterus.

In many cases after parturition there is a slight prolapse, chiefly due to relaxation of both pelvic floor and ligaments. With most of these patients it is sufficient to prescribe rest and astringents, douches, tonics, and perhaps the temporary use of a pessary. If the perineum is ruptured it should be repaired, while the enlarged uterus can sometimes be reduced in size by appropriate treatment.

The restoration of the pelvic floor, in many cases of minor prolapse, gives the extra assistance required to keep up the uterus. But in severe cases it is very often not enough; a gradual stretching takes place after the operation, and relaxation of the vaginal outlet follows from the continued pressure above of the prolapsed uterus. Of the operations on the pelvic floor that which I find most useful in severe cases is to remove a triangular flap from the posterior wall of the vagina, the edges are then brought together, and the usual flap-splitting operation on the perineum follows. I have done a large number of cases like this, and, as an adjunct to other treatment for procidentia, it is, in my opinion, the best of the various operations on the pelvic floor.

When all these measures have been carried out there still remain some cases where the prolapse persists, in spite of the various measures taken to combat it.

It may be impossible to restore the tone of the pelvic floor. Although by operation we can restore its shape, we cannot always prevent it from stretching again. Even when the pelvic floor has entirely recovered both shape and tone, the uterus will in many cases still come down.

The fault then lies chiefly in the uterine ligaments. There are very considerable variations in the strength of these ligaments among women, the explanation for which is probably to be found in heredity. For instance, I have seen complete procidentia in a single woman with a perfect pelvic floor and intact hymen. In this patient the pelvic floor was complete, but it could not hold up the uterus because the ligaments had given way. In contrast to this we find patients with complete rupture of the pelvic floor lasting for years, and yet the ligaments are so strong that, without assistance, they are able to hold up the uterus, and no prolapse follows.

When operations on the pelvic floor are not enough, ventrifixation may be tried.

In order to form an opinion of the value of hysteropexy for severe prolapse, we must consider the operation entirely apart from retroversion. For the last condition I am quite satisfied with the operation, but for severe prolapse I am not, and for this reason—to be of any service in prolapse, ventrifixation must be done with firm adhesions to the abdominal wall. Before the menopause this leads to complications when pregnancy occurs, and after the menopause the abdominal wall is often so lax that it becomes pouched and is dragged down by the descending uterus. This does not apply to retroversion, because there is much less drag on the abdominal wall, and the uterus, being suspended and not fixed, can expand if pregnancy occurs.

The treatment which I bring forward is meant to supplement the measures now in vogue, and will be found useful when they fail.

The general idea of the operation is to strengthen the band

within the broad ligaments and enable them to hold the uterus. This band, consisting of fibro-muscular and elastic tissue, runs upwards and outwards from the cervix to the walls of the pelvis. It has been more particularly described by Dr. J. C. Webster ("Researches on Female Anatomy," p. 88), Sir William Turner, Dr. H. Savage ("Anatomical Illustrations of the Surgery of the Female Pelvic Organs,") and others.

We are not attempting to form a new ligament as in ventrifixation, but to strengthen one already existing. The principle of the treatment is very simple, and consists in taking advantage of Nature's reparative powers.

When falling of the womb takes place the process is very gradual and may be going on very slowly for months, and even years, before there is much descent. As a consequence, there is no stimulus for the formation of the lymph which repairs the ligaments when a joint is dislocated.

After thinking the subject over, I decided to supply this stimulus in the treatment of prolapse of the uterus, and trust to Nature to carry out her part of the work by repairing the overstretched broad ligaments.

The choice of a reagent to effect this purpose required great consideration. It should be antiseptic; the effect should be entirely local, and if any absorption took place, it should be harmless to the general system.

Sulphate of quinine fulfilled as nearly as possible all these conditions. When injected into the cellular tissue of the arm it appears to be precipitated and causes an effusion of lymph, which remains for some weeks. It also has the advantage of being strongly antiseptic, and a tonic to the general system, if absorption should occur. A solution of this is injected into the cellular tissue of the broad ligaments from the vagina.

The uterine arteries and veins lying on the inner side of the broad ligament are not in the way, if the needle is inserted at the right point in the vagina; the same may be said of the ureters; while the outer two-thirds of the lower half of the broad ligament contains no veins or arteries of any size or importance, and can be freely laid open from the vagina

without having to tie a single vessel. I say this with conviction, because I had the opportunity of examining this space on occasions when doing other operations. It is necessary to lay stress on this point because many of the illustrations in the text-books give the impression that the space is filled with a plexus of veins.

The operation only takes a few minutes and is free from risk if done with precision, proper care, and antiseptic precautions. There is no rise of temperature, as a rule. It is essential that the point of the needle should be within the folds of the ligament and in the cellular tissue.

An anæsthetic is an advantage because it insures immobility, but it is not a necessity. The patient is placed in the lithotomy position. The vagina, which has been thoroughly douched for some days before, is washed out with a solution of hydrarg. perchlor. 1 in 2000. The rectum has of course been emptied, as well as the bladder. The posterior wall of the vagina is pressed down with a Sims speculum, while the anterior is held up by a retractor. Even then, in some of these severe procidentia cases, there was one in my list, the extreme dilatation of the vaginal walls will allow them to roll together in folds and block the view of the cervix. Under these circumstances two lateral retractors are required, as well as the other two. The injection is now made on each side through the vaginal wall, taking care that the direction of the needle is perpendicular to the base of the broad ligament, and parallel to the long axis of the uterus.

The syringe which I employ has a long, straight, rather thin, but rigid nozzle, so that, when it is passed into the vagina, the light is not excluded. The needle is about an inch in length and rather thicker than a hypodermic.

Before the injection is made it should always be tested, because the quinine solution is very apt to cause corrosion and it may then snap off short. If the patient has not taken an anæsthetic she will hardly feel the prick of the needle, but as soon as the injection of quinine begins some pain is felt for a few minutes, the severity of which varies in different individuals. Perhaps this might be obviated by an injection of eucaïne. The operation is now over and should not take more than a few minutes. Before the patient is lifted into bed

the uterus should be well anteverted bimanually. A cup-and-stem india rubber vaginal pessary, secured by tapes to a band around the waist, is inserted, so as to keep the uterus well up until the effusion of lymph has taken place. It can then be removed, as the uterus, at the end of four or five days, is held up by the effusion.

The strength of the sulphate of quinine solution is very important. If too strong it will cause suppuration, and if too weak it will not give sufficient stimulus to repair the ligaments. It is of the greatest importance to see that the solution of quinine is accurately made up. The treatment cannot succeed if the solution is not right. For the past twelve months I have used a solution of 1 in 5. The amount of this which is injected will vary of course according to the severity of the case, but the average amount which I use is 30 and 45 minims on each side for injection.

After the operation done under anæsthesia, most of the patients have practically no pain. For the first few days there is a slight aching in the pelvis, which then passes off. Nor is there any inflammation. The temperature usually remains normal.

In the consideration of each individual case an estimate must be formed of the amount of strengthening required to hold up the uterus.

For a case of severe prolapse such as we meet in private practice, but which has not reached procidentia, one injection of 30 to 45 minims into each broad ligament ought to be sufficient.

Among the working classes, when we have to deal with a patient who has had chronic procidentia for many years, enlarged uterus, dilated vaginal walls, overstretched pelvic floor, and weak general health, who will have to do hard work and constant standing after the treatment is finished, two, or even three, injections may be necessary to produce a satisfactory result. Our opinion will also be influenced by the reaction of the patient to the injection. The healthy, well-nourished woman will effuse and organize more lymph than the thin, anæmic, and exhausted mother of a large family.

The most difficult part of the treatment is to estimate the amount required to keep the uterus up permanently. One in-

jection will always do this for a time, even in the worst cases.

But it does not follow that one injection is sufficient. The amount of strengthening must be proportioned to the strain in each case, and this will depend on the weight of the uterus, and the condition of the pelvic floor, and the duration of the prolapse, and the work the patient will have to do. If she has to stand for ten hours a day in a shop or at the wash-tub, or lift heavy weights, she will require more injecting than a lady who never does more in the way of exercise than an hour's ride on horseback. Again, unless the patient is kept at rest until organization of the exudation has taken place, the operation will fail.

At the end of four days after the injection the pessary can generally be removed, as there is usually enough effusion to keep up the uterus. On examination per vaginam the effusion can be felt in both fornices. It is firm and resilient, not hard, and feels like a band passing from the uterus to the pelvic wall. The uterus is held up, but not fixed, and still has mobility.

There can, I think, be no doubt that the sulphate of quinine is deposited. None of these patients have ever had the least sign of cinchonism, although, in most instances, as much as 12 grains has been injected at a sitting.

When, however, the effusion of lymph has taken place, the next, a very important, point for consideration is this: What treatment shall we adopt to secure organization and prevent absorption? If an injured joint is kept at rest too long, more fibrous tissue than is necessary for repair of the ligaments is likely to take place, and impairment of movement follows.

On the other hand, if passive moments are practiced at an early date and massage is used to increase the circulation through the injured part, this does not occur; repair takes place, and the superfluous lymph is absorbed.

If we now apply this lesson to the treatment under consideration, the indications are to keep the uterus at rest as much as possible and restrain the circulation through the pelvis, in order to promote organization and avoid absorption. This is best done by keeping the patient at rest in the recumbent position. It is, however, never possible to keep the uterus

completely at rest, owing to the filling and emptying of the bladder, and the movements of the abdomen in respiration, etc. Out of the 40 patients, organization was quite satisfactory in 34, but not as much as I should have liked in the other 6.

The benefit derived by these patients with chronic procidentia when the uterus is well held up, although very apparent when they are allowed to get up, is more marked in most cases at the end of three or four months. The uterus becomes smaller, owing to the absence of the chronic congestion to which it was before exposed. This is particularly observed in the mushroom-shaped enlargement of the cervix. In several cases I have seen the cervix diminish to nearly half its previous size. At the same time the large erosions and profuse cervical discharge gradually clear up. An improvement also takes place in the vaginal walls. Being held up by the uterus, they have some chance of recovering their tone. The minor cases of cystocele and rectocele appear to get quite well, while the severe cases which at first ballooned out of the vaginal orifice on the least provocation are, to a great extent, kept in place by a ring pessary and contract to a quarter of their former size.

For instance, one case who had procidentia for twenty-five years, had at first to wear a ring for cystocele, although the uterus kept up perfectly. In May of last year the vaginal walls had quite recovered, and I was able to remove the pessary altogether.

The treatment does not prevent or interfere with pregnancy. Two of these cases became pregnant a few months after the uterus was restored to its normal position. They were able to do their work for the first seven months, and were delivered of healthy children at full term this year, without complications. This was only what I had anticipated, because the treatment does not impair the normal mobility of the uterus. Although these patients had to do hard work, there has been no return of the procidentia. The uterus still keeps up, although not so well as before they became pregnant.

Of the 40 cases that I have operated on only 2 have relapsed to their former condition; 4 cases have been improved, while the other 34 patients have remained well and the uterus has been kept in its proper position.

A NEW GYNECOLOGICAL POSITION.

BY F. JAYLE, M. D.

The position that I recommend has been perhaps already utilized, though I have not found any drawing of it; it certainly was not in use in Paris in 1897, when I first adopted it. It consists in the combination of the ordinary position of the speculum or of the lithotomy position, and of the sacro-dorsal "declive" position. In order to obtain this position it is necessary to have a balancing table with a system of "épaulières" (shoulder rests); these hold the patient in the declive position without securing the lower members, which remain free. You can use this position either for examination or operations. This declivity has the advantage of throwing back the intestines; of determining, by the entrance of the air, the dilatation of the vagina, which becomes almost vertical, and finally, of stretching the anterior vaginal wall. The consequences are first, that the exploration of the tubes and the ovaries, and especially of the uterus, is greatly facilitated; secondly, that the introduction of the speculum is very easy; thirdly, that the exploration of the vaginal walls is easy, for it is sufficient to depress the perineum, either with the finger or with a valve speculum, in order to get a good view of the anterior wall always, and of the cervix very frequently. With the aid of the finger or of some instrument, such, for example, as forceps, to raise up the anterior wall, you can easily see the cervix and the posterior vaginal fornix, in the cases when you have not seen them immediately. For operations, you must use the declining position combined with the lithotomy position. If the patient be put only in a half-declivity, vaginal operations, as a rule, become much easier, in my opinion. You operate standing, and the access to the vagina is easy. The anterior wall is stretched out, and with a weight-valve you can depress the perineum, and no assistant is necessary for holding the valves. I have practiced in this position all the vaginal operations, and I find in its use great advantages; but I more particularly call your attention to the utility that it presents in the cure of vesico-vaginal fistula.

SIXTEEN CONSECUTIVE CASES OF RETRO-PERITONEAL HYSTERECTOMY FOR UTERINE FIBROIDS.*

BY EDWIN A. NEATBY, M. D.

The evolution of the present almost ideally perfect methods of abdominal hysterectomy has been not perhaps slow, but very gradual. It is interesting to note that the developmental progress was due rather to theoretical ideals than to faulty practice. For in the hands of such operators as Bantock, Tait, and Thornton, the ultimate issue left little to be desired. But less practiced hysterectomists early realized the unsurgical nature of the practice which left a uterine stump, fixed to the abdominal wall, to slough away. It was rather the exactingness of the surgical instinct—of course with the patient's benefit ultimately in view—than the urgency of the mortality list, which ultimately swept away a method now almost extinct.

Among the earliest efforts in the way of advance was that to secure a living stump, quite apart from the intra-abdominal return of it. In the *American Journal of Obstetrics*, 1889, Kelly records a case in which the stump was sewn into the abdominal wound without the use of pedicle pins or clamps. The uterine arteries were first ligatured. On several occasions, in the year 1896, I attempted to make a living pedicle, by careful sewing and tying of the stump without ligature of the uterine arteries. But in each instance I had to abandon this on account of the impossibility of arresting hemorrhage without devitalizing the stump.

The next step was the attempt to secure a bloodless pedicle and return it into the abdomen. Goodell relates in the same journal how "the pedicle is transfixed with a double ligature, and tied on either side . . . the pedicle is dropped." Here, though the peritoneal edges were sewn closely together, no definite flap was made, and this can hardly be regarded as a retro-peritoneal method. But it was really an advance on the stage I mention next, in that it secured a living stump. Six

* Published also in *Homeopathic Review*.

consecutive successful cases were recorded. The stage referred to is where a wire clamp was used subperitoneally (Polk). Though this of course necessitated securing the stump to the abdominal wound, it was yet a stage towards the perfect retro-peritoneal method. Of these attempts, all re-recorded in the same journal and the same year show the earnest search for a more excellent way by American surgeons. Byford of Chicago, and Meinert, both suggested fixing the stump to the vagina instead of to the abdominal wall, stitching the peritoneum over the stump. Byford opened the anterior and Meinert the posterior vaginal cul-de-sac. The former certainly obtained good results. Both these methods were useful stages in the evolution of a more perfect method, but they were both destined to disappear, because of their complexity and of the liability of the stump to slough.

In the next year a surgeon so progressive as Mr. J. W. Taylor of Birmingham states that, "All English operators appear to use the extra-peritoneal method of treating the stump." This was not quite accurate, for in April, 1890, Mr. Treves defended the intra-peritoneal method when discussing Mr. Meredith's paper at The Medical Society. It is interesting to me to know that Mr. Treves, from whom more than from any other I derived my first interest in, and received my earliest inspirations regarding surgery, was, as far as I can discover, the first surgeon in this country to carry out with success, and to advocate, the "intra-peritoneal" treatment of the stump in hysterectomies.

I suppose that on few subjects of equal importance in surgery has there been so great an amount of rancorous discussion as on this question. Nor can I remember anywhere that speakers have shown greater ingenuity in misconstruing the meaning of their colleagues.

The chief cause of misunderstanding seems to have been the method of hemostasis. Those speakers who in the early days persistently opposed the so-called "intra-peritoneal treatment" of the stump all based their opposition to it on the assumption that ligatures applied to the stump itself were relied on for the arrest of hemorrhage. Even so recently as 1896 the writer of the article on hysterectomy in Allbutt and

Playfair's "System of Gynecology," although mentioning subsequently that the uterine arteries are separately secured by transfixion, states in his opening sentence that "the stump is secured by ligatures and sutures." It is clear that in the writer's mind some reliance was placed on the ligatures and sutures. Wherever this is done I feel sure that the result will be disappointing. I am, therefore, in entire agreement with Dr. Bantock's statement when he avers that "Some pedicles would be insecure and dangerous no matter how carefully they were tied." But this is by no means an argument against the retro-peritoneal method; for no reliance should be placed upon ligatures encircling, or sutures penetrating, the muscular or fibrous tissue of the stump. Hemorrhage must be prevented by securing the arterial trunks and branches supplying the stump, not by ligaturing the stump, or any part of it, in bulk. Mr. Tait, in the same discussion, said he had used hydraulic pressure in tying these pedicles, even up to two or three tons, without succeeding in rendering them permanently bloodless, so great is the possibility of shrinking. I would add that, if it were possible by ligature so to render the stump exsanguine, this would be one of the most dangerous methods to pursue, for it would be to court and encourage the death of the stump, and so to risk septic poisoning.

Passing over the earliest cases, such as Thornton's in 1877, which was followed by the deliberate abandonment of the method (because, again, the ligature of the stump was relied on), we come down to the earliest English records. I have referred to the work of Treves. The first record I have traced is a report, by Dr. Bantock, of a case done by Dr. Jackson in Wolverhampton. Here, too, the ligature was relied on. In February, 1890, H. A. Reeves presented a case of the intra-peritoneal method (successful) to the British Society, and in 1892 the method had penetrated to the Obstetrical Society, the first case being shown by Dr. Napier. But the communication which really brought the new operation up as a recognized, though still much opposed, method was a full and interesting paper on the subject by Dr. Heywood Smith, read in February, 1892, before the British Society. Dr. Smith's two cases were

successful, but in both there was suppuration round the pedicle. More experience and more perfect technique happily obviates this. Nor is it necessary to use the elastic ligature round the base of the tumor prior to its removal.

Turning now to my own experience: From the very first case of hysterectomy (by the extra-peritoneal method) which I did and watched through on my own responsibility, I realized how defective was the method. Although my patient recovered I began at once to cast about in my mind and, as previously stated, by tentative experiment, for a better plan. In June, 1896, I did my first intra-peritoneal hysterectomy, tying ovarian and uterine arteries separately, and covering the stump with peritoneum. This case was quite successful, but it was unpremeditated, and only done because it was an exceptionally favorable one for the new method. I had never seen the operation performed by another person, and my courage failed me. It was not until November, 1897, that I made another attempt, doing several other cases in the interval by the old method with varying results. In the meantime, through the courtesy of Dr. Heywood Smith, I had seen him perform the new operation. Since then I have had the opportunity of seeing that and other methods ("panhysterectomy," Doyen's method, Landau's method, etc.) in London by several operators; in Sockholm, by Professor Salin, who has had a long and brilliant series; in Berlin, by Professors Olshausen and Landau, and in Paris by Pozzi, Segond, and Tuffier. I have no hesitation in deciding, for myself at least, that the retro-peritoneal method of treating the pedicle, after ligature of the separate vessels is the operation of choice, wherever the cervix is healthy and is discoverable.

In December, 1898, I described the technique which I followed in carrying out the retro-peritoneal treatment of the stump in hysterectomy. It is, therefore, only necessary here to allude to a very few points which have been impressed upon me by later experience. The mode of securing the uterine arteries is a matter of some importance. At a recent meeting of the British Gynecological Society I pointed out that by placing a Doyen's long pressure forceps on the artery, the point of the forceps being applied close to the cervix (after

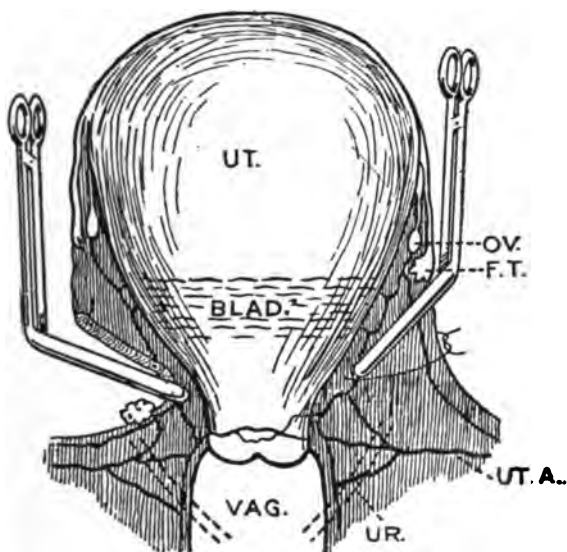
ligature and division of the ovarian artery and upper part of the broad ligament), several advantages are obtained:

1. The tumor can be cut away at an earlier period of the operation, thus admitting light and furnishing room for subsequent manipulations.

2. The cut vessels can be tied individually. By this means slighter ligatures may be used, no unnecessary tissue is tied, and there is less likelihood of the ligature slipping

3. Lastly, but not least, the ureter is less in danger of injury.

The accompanying diagram, altered from one in Greig Smith's book on "Abdominal Surgery," shows the stages of



the operation. On the right side the ligature is placed and not tied. On the left this is tied, the broad ligament is cut, and a forceps is placed on the uterine artery prior to removal of the growth. Doyen's forceps are the only ones I have met with which properly grasp at the points.

Much has been written about placing ligatures on, or sutures in, the cervical stump, and about cleaning the cervical canal. I now never interfere with that unless there is evidence of a septic condition, either from the history or by the presence of retained secretion seen at the time of operation. I am espe-

cially careful not to pass the uterine sound for several days before operation unless a special reason for doing so exists.

Nor do I think it desirable to constrict the cervix by ligature as a matter of routine. It is better to isolate the vessel if bleeding exists, and apply a fine catgut ligature. In some cases I have passed a stout catgut or silk "mattress" suture. But the less the stump is interfered with the less likelihood is there of subsequent irritation—pyrexia, pain, and pus. In Case VII. a good many ligatures and very careful suturing of the cervix had been used.

As a rule drainage is wholly unnecessary unless the peritoneum of the pelvis has been contaminated by discharge during the operation.

The first case I shall narrate is the only fatal one of the series. Its unusual character will be evident as the notes are read.

Case I. Myomata of Uterus—Cystic Ovaries—Hydrosalpinx—Hysterectomy. Death from cardiac failure. Miss C., aged forty-three in January, 1897, came to see me in that year for various nervous symptoms, which were worse at the monthly period, and for menorrhagia. At this time she used from 15 to 20 diapers at each period. She had also slight leucorrhœa and palpitation, but no dysmenorrhea.

Soon after this she complained of bearing-down and backache. When examined per vaginam a retroflexion was found, and a small Hodge's pessary was inserted. For many months she was much more comfortable and happy.

In October, 1898, her nervous symptoms had been worse again for one month; they consisted of "a dread of something," "... of going mad," of being "mad with fright." "Can't bear to be alone." "Can't take up a newspaper, fearing the result."

The menorrhagia had increased, 20 to 25 diapers being used. She could not go out on this account for the first two days of the period. Decided anæmia was setting in, with oppression at the chest and a feeling as if the heart were grasped. This condition was relieved by ars. 12. In July, 1899, the menorrhagia was still increasing—25 to 30 diapers. Anæmia more pronounced. She said, "Sight goes suddenly, and is giddy for

a moment, feels faint, and nearly falls," after the monthly periods. Plat. mur. 3x. In February, 1901, consented to another examination. I found a nodular growth extending out of pelvis, freely movable.

Heart.—Apex beat external to nipple; hemic bruits at all valves. P. 96.

Says abdomen swells before period, and there is then difficulty of micturition.

In order to avoid the exhausting hemorrhage of another period, she was taken into hospital and hysterectomy performed at once. The uterus was tethered down by dense adhesions in which the ovaries were buried. Each ovary was the size of a Tangerine orange, and full of altered blood. These ruptured in removal. One tube was closed, and distended with clear fluid. After operation the pulse and temperature at once ran up. They began to come down on the fourth day, but patient did not recover. The usual signs of sepsis were absent, such as distention and vomiting; flatus was passing freely.

At a post-mortem examination the coils of intestine were slightly reddened at points of contact. The fluid of the abdominal cavity contained streptococci.

Case II.—June 24, 1896. E. W., aged fifty years.

Diagnosis.—Large Uterine Fibroid—Retro-peritoneal Hysterectomy (glass tube drain).

Result.—Recovery.

Patient is married, but has had no children and no miscarriages. She always had fairly good health until she was forty-five, when she was under treatment for fibroid and ovarian tumor. Since then she has been gradually getting worse. Her chief trouble is a continual pain round the abdomen; also in her legs, and especially in the right hip. The abdomen is much swollen and there is a large tumor occupying the whole of the right side of it, extending upwards to about three inches below the lower margin of the ribs. It is tense and appears semi-fluctuating, but has not increased in size during the last four years. The periods ceased at the age of forty-five.

Urine.—She is troubled with incontinence of urine at times,

and at others has great difficulty in passing it. The urine contains no albumin—sp. gr. 1020. She suffers from constipation. During the last twelve months she has lost flesh and has been getting weaker.

Treatment.—On July 11, abdominal section was performed, and a tumor was exposed. The usual broad uterine pedicle could not be found, and it was at first thought that the tumor was of ovarian origin. On further examination it was found that the pedicle consisted of the two broad ligaments with a thin central cord-like body, which was the attenuated and elongated cervix, not more than the thickness of a small fourth finger. The whole formed a broad, riband-like pedicle. This was tied off in segments, the uterine arteries ligatured separately, and also the cervix. The peritoneum was then stitched over the raw edge of the pedicle by a fine, continuous suture. A tube was used, which was removed on the 16th. She made a good recovery and was discharged on August 11.

March, 1901.—Remains quite well. This was my first retro-peritoneal hysterectomy.

Case III.—November 27, 1897. K. F., aged forty-three years.

Diagnosis.—Soft Single Myoma Uteri—Operation.—Abdominal Hysterectomy.

Result.—Recovery.

The patient is married, but has no children. Menstruation commenced at the age of seventeen, and for several years it occurred every twenty-one days, lasting seven days, and was very profuse; but then it became normal until a year ago, when menorrhagia occurred, which has been going on until the present time. Three months ago she began to be troubled with dyspnoea, and at the same time an abdominal enlargement was noticed. She consulted Dr. Ord, who told her that she had an abdominal tumor, and sent her to me for treatment. A tumor extending from pubes to umbilicus was discovered; it was globular, appeared to consist of one large mass, and was diagnosed as a soft myoma—a conclusion confirmed by the operation.

Urine.—Sp. gr. 1020, acid, phosphates, no albumin.

Heart.—Soft systolic murmur in pulmonary area.

Treatment.—On December 2 abdominal hysterectomy was performed. Recovery was retarded by a bad cough, and thrombosis of the femoral vein of the left leg. She was discharged, well, on January 1, 1898.

Case IV.—January 26, 1898. H. H., aged forty-two. S. Intra-uterine Myoma Extruded. Complains of pain at monthly periods and menorrhagia. Seven years.

Past Illnesses.—Bronchitis and measles, anæmia.

Menstruation. Last cata.—Going on constantly for five weeks. For three months too frequent and too much. Previously to six months ago, cata. seven to ten days, profuse, forty diapers or more. Character.—Bright and pale, lately very offensive. Pain.—Comes with flow, and increases with it until fourth day, and gradually lessens after. Keeps her in bed for four to five days.

Intermenstrual Discharge.—Much leucorrhœa white or brown, acrid, offensive.

Pain (non-menstrual). Origin.—Constant, lower part abdomen, or goes into legs. Character.—“Dreadful aching,” progressive.

Bladder.—Frequency, day two to three hours; night three to four times, dysuria aching and forcing. Urine thick, white when first passed.

Pelvic Examination.—Free hemorrhage. Uterus size of three months' pregnancy, hard, nodular near fundus, not very tender, movable, no glands felt.

Admitted into Hospital, February. February 4.—Between January 26 and February 3, a polypus (fibroma) had extruded into vagina. It was tightly grasped by cervix and commencing to slough—deep purple with mottled in color, and mucous membrane peeling off in necrotic pieces.

Removed February 3 by écraseur (wire). Even recovery.

Out-Patient Notes. September 21.—Pain in left groin, aching. Retching during catamenia. Leucorrhœa profuse.

Admitted into Hospital, September 22.

Condition on Admission.—Anæmic, suffers from cold feet and hands, increase in abdominal girth past nine months.

Menstrual History (see as above).—Uterus enlarged by myomatous mass to within one inch of umbilicus, movable.

The removal of the extruded intra-uterine myoma, therefore, had not permanently benefited patient.

October 1, 1898.—Hysterectomy, both ovaries also being removed.

October 2.—Urine negative. L. parotid gland swollen and tender, difficulty in opening jaw, temp. 99°, pulse 88.

October 16.—Temp. 101°, pain right side of chest, examination, negative.

October 20.—Temp. falling. Urine, trace of albumin.

October 29.—Discharged cured.

Case V.—April 15, 1898. E. W., aged forty-six years, single.

Diagnosis.—Uterine Myoma—Operation—Retro-peritoneal Hysterectomy.

Result.—Recovery.

The patient first discovered a swelling in the lower part of the abdomen in September, 1892; it was discovered quite accidentally. She first came under my care in April, 1893, and has been under observation ever since. At that time the tumor was absolutely symptomless, the patient could walk, dance, and skate without discomfort; she had no dysmenorrhea or menorrhagia. The tumor, when first noted, reached to 2 1-2 fingers' breadths below the umbilicus, and was nodular and everywhere hard. It filled the pelvis and bulged near the vaginal orifice. The tumor continued to grow slowly for two years until it reached the level of the umbilicus, or slightly above on the left side. About this time (March, 1895) menstruation began to be irregular and scanty, and the menopause appeared to be setting in. In another two years (March, 1897) diminution had taken place, so that the growth was about the same size as in 1893, and during the last six months of 1897 menstruation occurred only in August and December. In January, 1898, the patient complained of neuralgia of legs, and pain in the back. She was less able to walk and the tumor had enlarged, the highest point (on the left) had reached 1 1-2 fingers' breadth above the umbilicus, *i. e.*, about three-quarters inch higher than it had ever been before. This increase in size was apparent only in that part of the tumor situated to the left of the middle line. The increasing portion was found to be

soft and semi-fluctuating instead of hard as before, a degenerative change having evidently set in. During the first two months of 1898 there was, for about four weeks, a slight hemorrhage lasting continuously. In March a very severe bleeding took place, causing pallor and a rapid pulse (over 100). In view of this renewed activity on the part of the growth, operation was recommended at a staff consultation.

Urine.—Sp. gr. 1010. No albumin.

Treatment.—On April 21, under gas and ether, a long abdominal incision was made, extending above the umbilicus, and the tumor exposed. The chief part of the tumor was tightly wedged in the pelvis and was raised with difficulty. The broad ligaments were filled out by the tumor, which had to be shelled out on each side, a small piece only being ligatured at a time. Gradually the whole was detached until the vaginal attachment was reached. During the course of the "shelling out," anterior and posterior flaps of peritoneum were separated from the front and back of the tumor. After the removal of the latter these two flaps were united by continuous sutures, so that the pelvic floor was completely closed. The abdominal wound was closed in two tiers, no drainage tube being used.

She made a good recovery, and was discharged on May 19. No malignant changes were found on examination of the growth.

Case VI.—June 2, 1898. O. M., aged forty years.

Diagnosis.—Uterine Fibroid—Operation—Retro-peritoneal Hysterectomy.

Result.—Recovery.

Up to the age of thirty-three the patient was quite strong, and her periods were regular. At that time the catamenia became more profuse, and continued so for two years. Then to this was added a pain which came on the third day of the period, lasting for twenty-four hours. This condition and a discharge all the time between the periods, has persisted until the present time. The pain now comes on the second and third day, but is of shorter duration; it is very severe in the right ovarian region; a dull, aching, throbbing pain remaining for the most part in the same spot, but occasionally shooting towards the back, and remaining in both front and back as a

steady pain. During the last six months the discharge has changed in character, getting thicker, and yellow or green; previously it was thin. A day or so before the periods it is increased in quantity, having stopped entirely for the previous two days.

Present Condition.—Anæmic, eyes slightly yellowish. Tongue, gums, and conjunctivæ very pale. Bowels regular. Urine passes freely.

Heart.—Distinct systolic murmur to the apex.

Physical Examination.—A myoma extending about half inch from the umbilicus, and involving chiefly the anterior wall of the body of the uterus. The mass is extra-pelvic, the cervix, though large, not being involved by the growth. The os is patulous; the patient has had one child. During an attendance of some two years as an out-patient the tumor has varied with menstruation, but has not definitely grown. The reason for proposing operation was the increasing hemorrhage and her extremely trying environment, which rendered it impossible for her to secure needful rest as she was obliged to at the monthly time. Moreover she was suffering from the anæmia, the apex beat of the heart being displaced outwards.

Treatment.—On June 4 retro-peritoneal hysterectomy was performed. She made a good recovery, and was discharged well, and wearing a belt, on July 14. She remained well and regained strength very well afterwards, and is able to work hard.

Case VII.—Hannah H., aged forty-two. Admitted September 27. Discharged October 31, 1898. (From notes by Dr. Moss, late house surgeon.)

Uterine Myoma—Hysterectomy, Retro-peritoneal. Cured.

Patient was admitted for abdomino-pelvic tumor, menorrhagia, and offensive intermenstrual colorless discharge.

The only severe illness patient has had is variola; her father died at forty-seven, of phthisis; her mother is strong, aged eighty.

Menstruation.—Duration six days, passes large black clots. Irregular since 1886 (last confinement). She has bad pain for two days, which passes off suddenly. The days of most pain vary, they are first and second, or third and fourth, or

any two days. The pain is of a dull dragging nature down groins and legs, both sides equally; relief from moving about. Leucorrhœa is watery, colorless, and offensive. There is frontal and vertical headache, worse at the monthly period. Appetite is poor; bowels regular; patient is very anæmic. Abdomen very fat. In right iliac region is an ill-defined mass felt through the fat. No free fluid in abdomen. Urine, sp. gr. 1012, slightly acid, no albumin, no sugar.

Pelvic Condition.—By vaginal and rectal examination. A tumor extends in middle line to 2 1-2 fingers' breadths of umbilicus; on right side reaching to umbilicus or above. The tumor is drawn up out of pelvis and the cervix is not involved.

Heart sounds weak, no bruits.

October 1.—Abdominal hysterectomy by the retro-peritoneal method; right ovary removed.

Recovery was disturbed by a rise of temperature apparently due to some irritation round the stump, which was tender to touch. She was discharged quite well on October 31, and has remained so.

Case VIII.—Large Uterine Myomata. October 12, 1898. M. W., single, aged forty-four. Sent to me by Dr. Bennett on account of uterine hemorrhage occurring almost continually for six months. For as long as 2 1-2 years the menstrual loss had been profuse and premature. At first the color is very bright and the blood is clotted, afterwards it is pale and watery. Latterly menstruation has been accompanied by a good deal of aching in the lower part of the abdomen. Between the periods there is profuse, pale yellow, watery discharge, bland and not offensive. Has had dysuria previously; not now. Patient is anæmic, and has had a good deal of dyspnoea, but this has been relieved by rest in bed and treatment prescribed by Dr. Bennett. She has cold dry hands and feet, and no palpitation. There are hæmic cardiac bruits. Pulse tracing shows some tension. An abdominal tumor extending to half an inch from umbilicus was found; hard and multi-nodular, with one boss very prominent in the right iliac region. The tumor is continuous with the uterus; portio vaginalis not involved; mobile; no disease of appendages made out. Operation at a

Nursing Institute, October 18, retro-peritoneal. Perfectly uneventful recovery.

March, 1899.—Color now good; is much stronger than before operation. The sphygmogram has lost all sign of tension, there is no mitral bruit, and only a faint one at base.

Case IX.—November 30, 1898. C. S., aged fifty-nine years.

Diagnosis.—Myomata and Malignant Disease of Uterus—Operation—Retro-peritoneal Hysterectomy.

Result.—Recovery.

Two years after the menopause the patient began to be troubled with a slight hemorrhagic discharge, accompanied by pain and a feeling of weakness in the back. This continued off and on for some years, something stopping for a few months. Four months before admittance into the hospital she had an attack of severe pain in the lower part of the abdomen, shooting down the groin and thighs. From this time the discharge increased in quantity, and the pain in the back became worse. The discharge is bright red and profuse, but not offensive.

General Condition.—The patient is losing flesh and getting weaker; spirits are pretty good; appetite fair. Bowels regular, some pain on defecation, but no hemorrhoids. Heart sounds normal, but weak.

Urine.—Sp. gr. 1030, very acid, no albumin, no sugar.

Per Vaginam.—Vagina small and contracted about upper part, especially posterior fornix. Cervix and os very small; uterus quite movable. The body of uterus is larger than normal, and hard nodular masses were felt on the posterior surface.

Treatment.—On December 3 the uterus was removed by the retro-peritoneal method. It was enlarged and nodulated, the nodules being due to small fibroids. On section the body of the uterus was seen to be infiltrated with a malignant growth, which was breaking down. The cervix appeared to be entirely free from growth. She regained strength slowly, but ultimately made a good recovery, and was discharged on January 4, 1899.

Case X.—January 13, 1899. Large Single Myoma. Miss P., aged forty-one, was sent to me by Dr. A. H. Croucher on

account of occasional attacks of retention of urine—the catheter having been used. Dr. Croucher found a fibroma in April, 1898, of the size of a small orange after passing the catheter. Again a few days ago catheter became necessary, and the tumor was found to be larger.

Last menstruation three weeks ago, five to six days. Moderate. Dark clots, offensive. The period every four weeks. No pain.

Initiation.—Aged fifteen. Irregular at first.

Leucorrhœa.—Last ten years. White, bland. Does not increase.

Bladder.—Five to six times daily. Three times at night. Usually has to wait ten to thirty minutes before it will pass.

Physical Examination.—Hard mass felt in lower part of abdomen, extending to within 3 1-2 inches of umbilicus, not in iliac fossæ. Cervix is down, forward, and strongly to left. It is within 1 1-2 inch of vaginal orifice. Tumor and cervix uteri continuous one with another. Pressure on cervix moves tumor in opposite direction. Tumor chiefly corporeal, and extends more forward than backward. Appendages not clearly to be felt.

Per Rectum.—Left ovary large, not tender. Right not felt. On February 29, 1899, at the Leaf Cottage Hospital, Eastbourne, with Dr. Croucher's co-operation, I removed the tumor and uterus. Patient made an easy recovery and has remained well.

Case XI.—January 31, 1899. L. B., aged thirty-nine years.

Diagnosis.—Uterine Fibroid—Operation—Petro-peritoneal Hysterectomy.

Result.—Recovery.

Patient is a hospital nurse. Two years before admittance into the hospital she first noticed a swelling of the abdomen; a year later she noticed that this swelling was irregular and hard, and she was told by a doctor that she had an ovarian cyst. For about eighteen months she has had menorrhagia, but not much menstrual pain—some leucorrhœa.

General Condition.—Patient is anæmic and is sometimes troubled with faintness, and also with heats and flushes. Appetite very good—some flatulence. Bowels are constipated,

and she has hemorrhoids, which sometimes bleed. She suffers a good deal from neuralgia and headaches, which are worse during the periods.

Heart.—The first sound is "impure," more marked towards the sternum than the axilla; the base sounds are clear. The condition points to anæmia, rather than to any valvular lesion.

Urine.—No albumin. No sugar.

Physical Condition.—A central, softish, elastic tumor reaching to the umbilicus; it is easily movable, and does not fill the pelvis. The vagina is very small, the cervix points back, and is quite continuous with the tumor.

Treatment.—On February 4 the uterus, the tumor, and the left ovary and tube were removed through an abdominal incision by the retro-peritoneal method. The patient made an excellent and straightforward recovery, and was sent to Eastbourne on March 7.

Case XII.—May 3, 1899. E. B., aged thirty-eight years.

Diagnosis.—Fibro-Myoma of Uterus and Right Ovarian Dermoid—Operation—Retro-peritoneal Hysterectomy.

Result.—Recovery.

The patient, who is a hospital nurse, was quite healthy until six years before admission to the hospital. Menstruation commenced at the age of 14 1-2, and was regular, but profuse, until three months after she commenced her hospital duties. She then noticed that the catamenia came on every seventeen or eighteen days, and would last about ten days, and were very profuse. Three years ago she began to have severe pain in the left side of the abdomen, which came on with the period, and would last from forty-eight to fifty-six hours. Latterly, she has had a great deal of pain between the periods, in the lower part of the back. During the periods she has pain in the abdomen, back, and under the left breast. The bowels are constipated. The uterus was found to be much enlarged, and lying to the left of the nodule line. A tumor mass filled up the sacral hollow; this was best felt per rectum.

Urine.—Sp. gr. 1020, acid, no albumin.

Heart.—Faint, hæmic, systolic murmur inside the nipple. The heart is dilated, the second pulmonary sound is rough and accentuated.

Treatment.—On May 6, under gas and ether, an abdominal incision was made, and the uterus and right ovary were removed by the retro-peritoneal method. The incision was closed by three rows of sutures—peritoneal, fascial, and superficial. On opening the uterus a fibro-myoma was found on the posterior surface, which was undergoing mucoid degeneration. On incising the ovary it was found to contain a dermoid cyst (hair, sebaceous material, etc.), and also a few small cysts superficially. The patient made a good recovery, and was discharged on May 31.

This patient was kindly sent to me by Dr. Wilkinson, who subsequently reported that she remained well.

Case XIII.—June 29, 1899. S. S., agd forty-four years.

Diagnosis.—Uterine Fibroid Operation—Retro-peritoneal Hysterectomy.

Result.—Recovery.

The patient is a single woman, and has had a fairly healthy life with no serious illness, but for ten years she had epileptic fits at times. Six years ago the catamenia, which had previously been regular, became excessive and frequent, recurring after an interval of only a week. She was operated on by me for polypus. For four years she menstruated regularly, but in December, 1898, the periods again became profuse and frequent. Bowels are constipated. Appetite fair.

Per Vaginem.—The uterus was found to be large, the cavity measuring four inches. A small myoma was diagnosed.

Heart.—Systolic apical murmur.

Abdomen.—Pain on pressure above the pubes.

Urine.—Sp. gr. 1020, acid, no albumin.

Treatment.—On July 1, under A.C.E., abdominal section was performed, and the uterus and both ovaries were removed by the retro-peritoneal method. She made a good recovery, and was discharged on August 1.

Case XIV.—Small Multiple Myomata and Pelvic Peritonitis. Recovery. This case was related in full in the March (1901) number of this JOURNAL by Frank Shaw and myself. It is therefore unnecessary to go into details again. The patient had been bed-ridden for seven years on account of hemorrhage and pain, and was extremely emaciated and helpless.

Examination under anæsthesia showed the posterior surface of the uterus to be studded with small myomata, and the mobility of the organ was lessened. The broad ligaments were contracted and thickened. A great deficiency in the quantity of urea excreted was found.

On April 3, 1900, at her own house, the uterus and the left ovary were removed. Recovery was good, and the strength was satisfactorily regained, the patient being enabled to lead an active life once more.

Case XV.—Two Large Fibro-Myomata and Multiple Small Ones.

A lady, aged forty-three, was sent to me by Dr. Epps, on account of enlargement of abdomen by a growth which had been noticed two years or more (July 17, 1900), beginning first on the left side of the lower part of the abdomen, above the groin.

The patient's family and previous personal history were apparently devoid of significance. She had a good deal of standing in business. She menstruated regularly and moderately, but on her first visit said her period was ten days overdue; she complained of pruritus vulvæ et vaginæ and thought the tumor was "rapidly enlarging" the last two or three weeks. She suffered slightly from flatulence and palpitation; the pulse was eighty-four, and of fair quality; patient thought she was latterly thinner, except the abdomen. She said she had no leucorrhœa.

On physical examination an irregular hard tumor, very prominent and nodular, extended from the pelvic floor to the umbilicus. The cervix was lying to the front, near the symphysis pubis, and was not involved in the growth. Behind, filling Douglas' pouch, was a hard mass belonging to the same tumor. The cervix moved readily on moving the tumor in the abdomen, and reciprocally, though of course less so.

Operation was recommended on the ground of the rapid growth and commencing pressure symptoms. It should have been stated that latterly micturition had been very much more frequent. On August 1 the tumor was removed by the retro-peritoneal method. An uninterrupted recovery was made. On section of the tumor a small embryo of about one month was

found occupying the uterine cavity. (It is figured in the *plate* accompanying.) The pelvic portion of the tumor was softer and much more vascular than the upper part, and appeared to be actively growing, but no other difference was noticed on microscopical examination. There was no suspicion of pregnancy when the operation was advised; but had this been



MYOMA SHOWING EMBRYO IN UTERINE CAVITY.

known it would have formed an additional and imperative reason for operating. Delivery would have been simply impossible per vias naturales.

In October, 1900, patient was seen and was quite well.

Case XVI.—Multiple Small Myomata. (From notes by Miss L. Cunard Cummins.) E. P., S., aged forty-nine, has attended as an out-patient for several years on account of dysmenia and brownish intermenstrual discharge. In October, 1898, she was in the Homeopathic Hospital, and I removed a mucous polypus, and curetted the uterus. The improvement

was not long lasting, and the symptoms distressed the patient so much so that in August, 1899, I again took her into the hospital and curetted.

Menstruation has always been profuse, especially the last year, necessitating her staying in bed. There has also been constant pain in the left iliac region of a shooting and aching character. The uterus was found, on examination, to be enlarged, and to contain small myomatous nodules. At the operation in December, 1900, there were found two nodules (myomata) the size of a walnut, embedded in the uterine wall, one at the fundus, and one at the junction of the body and cervix.

In this case both ovaries were left in situ. They were unusually small for a case of myoma with hemorrhage. The uterine arteries were clamped before removal of the uterus and tied afterwards. The microscope showed some of the (paler) parts of the tumor to be composed almost entirely of unstriped muscle cells, the rest a mixture of muscular and fibrous tissue. Recovery was uneventful.

Current Comment.

Dougal Bissel, M. D.:

My new operation for *retroversion of the uterus* is as follows: The abdomen is opened by the median incision. If pelvic adhesions exist, they are broken up, the attached organs freed, and the ovaries and tubes, if diseased, are removed. The uterus is then grasped at the fundus with the vulsellum forceps and pulled upward.

In order to form an exact idea of the extent of relaxation in the round ligament, a suture, on a small round-pointed needle, is first passed from behind forward through the round ligament, at a point about one-half inch from its attachment to the uterus; the same suture is again passed, but in an opposite direction, through the round ligament, at a point about one inch from its first insertion. A similar procedure is followed on the other side. When these temporary sutures are tied the

round ligaments become looped, and an exact idea is formed as to the amount of round ligament to be resected. If the tension on the ligament is found to be too great, the section is made inside the loop. If not sufficiently taut, the section is made outside the loop.

Another preliminary, but essential, step is to pass a suture immediately under the round ligament, about one-half inch to the outer side of the loop. This, when tied, completely encircles the round ligament and prevents its end from retracting, when the section is made. It also facilitates the handling of the ligament when introducing the permanent sutures. The same step is taken on the other side of the loop about one-quarter of an inch from the uterus, but the latter is not so essential as the former. A section of the round ligament is then made, inside or outside of the loop, as is found necessary. The temporary suture forming the loop is then cut, and this portion of the round ligament is dissected away from the broad ligament. The artery of the round ligament is grasped and tied, if severed.

The next step is the insertion of the permanent sutures, and the adaptation and adjustment of the raw surfaces. The first suture is passed on a round-pointed needle from above downward, through the center of one of the cut ends of the round ligament, and then through the other cut end from below upward.

Two other sutures of the same size are passed, one on each side, but only half-way through the ligament, which serve, when tied, to keep the ends in exact position. The sutures in the round ligaments are not tied until the raw surface of the broad ligament made by cutting away the resected portion of the round ligament is disposed of. The raw surface is parallel with the course of the round ligament, but is sewed together with No. 1 catgut on a line at a right angle to its original direction. The suturing of this surface should be done before the round ligament sutures are tied and in the following way: With a tissue forceps grasp the broad ligament on the under surface midway. A suture is passed at this point and continued along the denuded edges to the middle of the opposite side. It will be found that the suturing of the broad ligament

in this way brings the ends of the round ligament into close apposition. The permanent sutures that have been passed through the ends of the round ligament are then tied, and the operation completed.

The following is a brief history of the first case operated upon in this manner: Mrs. S., aged thirty, had suffered for some time before operation from "pulling and dragging in the bones of the back," pain through the pelvis of such a character as to prevent her from walking or standing with ease, and more or less vesical tenesmus. Menstruation had been very profuse, lasting at times twenty days.

Operation was performed September 3, 1901. Curettage was first done, then abdominal section made, the uterus being found completely retroverted. At this time 2 1-2 months after operation, the uterus is found in perfect position, the patient has menstruated twice, the period lasting eight days, and she has been relieved of all pain and discomfort.

B. Strachan, M. D.:

I heartily agree with your contributor when he advises in the *third stage of labor*, "the diligent hunting for membranes" as the surest way of avoiding trouble during the puerperium, but that is just what, in cases of the better class, and especially nervous ones, we hesitate in doing. In cases at all doubtful I am convinced, from long experience, that with the hand thoroughly cleansed and disinfected with bichloride, there is far less risk in diligently searching for shreds, and finally scooping out the whole contents of the uterus, than in adopting simply a *laissez-faire* policy.

The twisting of the membranes is a good routine method of treatment, yet even this must be used with discretion. When the child is born towards the margin of the placenta, through a hole in the membranes, these remaining otherwise intact, there is formed a cul-de-sac in which clots may gather, and it is obvious that the twisting of the membranes up to these may form a ball incapable of being removed by pressure or traction. This I found on one occasion to be markedly the case, whereas, by untwisting, the blood clot was easily expressed, the membranes readily following en bloc.

It is surely unnecessary to urge the most careful examination of the maternal side of the placenta, especially in rough, nodular ones. Yet a case of this kind caused me one night a good many hours of anxiety. A stout, flabby patient had had an ordinary, though somewhat tedious, labor, and the placenta, which was lobulated, was easily removed, and, undergoing the usual scrutiny, showed no signs of not being entire. Although the uterus seemed fairly well contracted under friction and pressure, there was a persistent oozing of blood, which was by and by followed by decided symptoms of a hemorrhage much more serious than the mere external escape warranted. On introducing my hand what was my surprise to find a nodule not much larger than a hazel-nut firmly adherent to the posterior wall of the uterus, and surrounded by blood clot. On the removal of this, followed by a uterine douche, with glass catheter and siphon, of bichloride solution, and a hypodermic injection of ergotin, she gradually rallied, was sitting up in bed on the fifth day, and otherwise made an excellent recovery.

Gentle circular friction of the fundus with the point of the finger, over a limited area and at short intervals, I have found the uterus specially sensitive to, contracting at once and firmly, when general friction and pressure failed.



Edwin Walker, M. D.:

The method I have employed in the last few years in the application of *galvanism for uterine hemorrhage* has been quite simple. I have abandoned the strong current as recommended by Apostoli, because it is painful and unnecessary. Mild currents can be borne in nearly all cases. I formerly measured the current by a milliamperere meter, but have been governed of late by the feelings of the patient. I use an intra-uterine platinum electrode three inches long, and the shaft of the instrument is insulated and attached to the positive pole. A flat metal electrode, about four by eight inches, covered with moistened absorbent cotton is attached to the negative pole and placed over the abdomen. The current is then turned on until a distinct burning sensation is felt on the abdomen. Usually ten minutes is long enough for an application, but in some rebellious cases I have used it as long as thirty minutes.

Applications are made at interval of from three to six days according to the effects, and it is rarely necessary to make more than eight applications. If a decided improvement is not made in three or four applications, some other treatment should be instituted, but this I have rarely found necessary. The patient is always given a bichloride douche, and every aseptic precaution is followed in regard to the instruments used.

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C. J. Blake, M. D.:

The importance of an *examination of the ear in the diseases of childhood* is shown by consideration of the reflex relationship of the ear to other organs, acute congestion of the ear during dentition, acute congestion in diseases of the chest and in connection with intestinal disease; in cases of meningitis there are objective symptoms which make examination of the ear to value in diagnosis.

An examination of the children in the deaf-mute institutions throughout the United States, which is now in progress and which includes in its plan thus far the examination of about twelve thousand children, that number to be augmented as the work goes on, gives a very excellent opportunity for determining the frequency of severe lesions of the auditory apparatus which have occurred unnoticed in childhood. Of the examinations thus far made half of them certainly emphasize the statement of the late Dr. Clark, that the general practitioner who failed to make an examination of the ear in the case of one of the exanthemata in childhood could be justly denominated an unscrupulous practitioner. Of the children examined it has been found that eight per cent. can by treatment be so far relieved as to their hearing as to be taken out of institutions and put in hearing schools; seven per cent., still further, can have their hearing so far improved as to make possible the hearing of their own voices, thus utilizing the hearing for instruction in articulation; and fifty per cent. of the children in deaf-mute schools are found to have lost their hearing as the result of inflammations of the middle and internal ear in childhood, more or less amenable to treatment. These investigations point very definitely to the importance of the examination of the ear in early life in patients who cannot

express themselves fully and who cannot indicate, as can the adult, the possibility of a lesion of this hidden organ.

The structure of the ear in the child is very different from the structure of the ear in the adult. In the child there is a small auditory canal, practically an absence of a bony canal and sometimes absence of bone around the tympanic ring, with greater possibility of passage of infectious material from the middle ear into the external canal—this dehiscence of bone being found in about fifteen per cent. of all infant skulls. In cases of meningitis a distinct elevated red spot, its long axis at right angles to the long axis of the canal, is sometimes seen on the posterior wall, close to the drum-head.

This red spot has been found in about fifteen per cent. of the observed cases, and is explained by the vascular connection through a dehiscence of bone about the tympanic ring and its connection with vessels of the petro-squamosal suture.

There is a peculiar cry which is distinctive of certain diseases in childhood. The cry which accompanies the acute inflammation of the middle ear in the very young child is one which may be said to be particularly distinctive; a sharp cry gradually fading away into a wail as the pain diminishes, and recurring with equal intensity at shorter and shorter intervals as the congestion of the drum-head increases.



F. A. Higgins, M. D.:

There are few more interesting topics of discussion for the obstetrician than the *treatment of placenta prævia*, and there still exists a wide difference of opinion and of practice with respect to the methods to be pursued in the treatment of the condition.

Recently several have advocated Cæsarean section as the best method of treatment for placenta prævia, but the arguments in its favor are far from convincing that the operation is a suitable one, or that its results will be attended by a lower rate of mortality than is obtained under other methods.

I have recently collected the cases of placenta prævia at the Boston Lying-in Hospital and found altogether 75, of which 56 were treated in the hospital wards and 19 in the Out-Patient Department at patients' homes.

Among the 56 house cases there occurred 6 deaths—a mortality of 10.7 per cent.; all the fatal cases were complete placenta prævia except one. Of the 19 out-patients there were 2 deaths, 1 of the complete and 1 of the incomplete variety—a mortality of 10.5 per cent.

This mortality is somewhat higher than should occur under normal conditions with careful treatment in private practice, since a large proportion of these cases are sent into the hospital by outside physicians in Boston and vicinity, for delivery after severe hemorrhage had occurred.

The fatal cases show desperate conditions in which many patients are received at the hospital. There were a number of others seemingly quite as bad, but which survived under similar treatment. The state of indifference or neglect which many of these women allow themselves to fall into with respect to hemorrhage seems incredible. I suppose it is due to the fact that they become accustomed to seeing considerable loss of blood about a quarter of the time during most of their life, and an increase in the amount does not impress them as of serious importance until they begin to notice the weakening effect.

In only one of the fatal cases was there a severe post-partum hemorrhage which was difficult of control, the others having little or none. This illustrates a fact which I wish to emphasize strongly, namely, that while post-partum hemorrhage may be an active danger and one always to have in mind to be guarded against, it is not nearly as dangerous an element in placenta prævia as continued ante-partum hemorrhages, which so weaken the patient as to render any form of delivery dangerous.

Only one primipara died out of 16, and her death seems to have been directly due to the exhaustion from the ante-partum hemorrhages. The dilatation and delivery were easy and rapid, as they were in all of the 7 primiparous cases in which version was performed. Eight primiparæ delivered themselves without difficulty, and the labors were comparatively short for primiparæ, averaging not over ten hours, undoubtedly due to the softness of the os and the easy dilatation-characteristic of placenta prævia.

Version, then, usually contra-indicated in a primipara because of natural difficulties, is easily performed in placenta prævia.

In any of the 8 fatal cases it does not seem as if the most enthusiastic advocate of Cæsarean section would care to do the operation under the conditions in which the patients were received.

Another aspect of this disease which I have not found mentioned by other writers, but a side which appeals at once to the obstetrician and to any having much to do with young babies, is the large percentage of premature births in placenta prævia. Müller says that only one-third ever reach maturity. In 74 cases at the Rotunda Hospital 62 per cent. were premature, and I have found precisely the same percentage in the 75 cases at the Boston Lying-in Hospital.

The mortality of premature infants is so high under the most favorable conditions that it is inadvisable to subject the mother to the danger of an abdominal operation for anything less than a full-term child can scarcely be questioned. Statistics in regard to premature infants are not frequently given, but at the Paris Maternity the mortality is over 70 per cent.; at the New York Nursery and Child's Hospital it is 60 per cent.

The fetal mortality in placenta prævia is conceded to be very high, probably from 50 to 60 per cent., and very likely will always remain so, unless the percentage of premature births, now 62 per cent., can first be diminished. The large proportion of premature births in itself is a sufficient cause of very high infant mortality, and when combined with prenatal hemorrhage and asphyxia, but little, if any, improvement can be expected. It is difficult to see how Cæsarean section can solve this problem to any appreciable extent.

The rational treatment of placenta prævia depends more or less upon the circumstances arising in each case.

Every patient, after the appearance of the first hemorrhage, and the diagnosis is established, should be put absolutely at rest and kept under most careful supervision, with every provision at hand ready for immediate interference. The first hemorrhage is practically never fatal, but a dangerous one may

ensue at any time without warning. Before the fetus is viable or nearly so, unless the patient can be transferred to a hospital or surrounded by proper safeguards in her own house, induction of miscarriage is the only safe method of treatment and is practically without mortality to the mother, if properly performed. After the viable period is reached, in the interest of the child it is advisable to defer delivery as long as possible with safety to the mother, but only when she can be at rest and carefully watched. Any other methods of procedure entail grave danger to both lives, and involve the physician in anxieties and risks which he himself should be unwilling to assume.

An important point to always keep in mind in deciding upon the methods of treatment is that, if hemorrhage does begin early, it is rarely possible, even under the most favorable auspices, to prolong the pregnancy for any great length of time; a few weeks at best can only be secured. Miscarriage and hemorrhage may begin even while the patient is sleeping quietly.

The only safe way is to terminate pregnancy as soon as the diagnosis is established after the end of the seventh month, as after this time a hemorrhage may occur without warning, severe enough to cause ultimate death. After delivery is decided upon, if the patient's condition is in any way precarious from previous hemorrhage, and the bleeding continues, the membranes should be ruptured, and with the woman in Sims' position the vagina should be tightly packed with pieces of dry, baked gauze, which, if well applied, controls hemorrhage by pressure and by the styptic action of the dry gauze. The patient is then kept under careful observation, brought into better condition by stimulants and saline infusions. The gauze will efficiently control hemorrhage for from four to six hours, and may safely be left in that length of time unless it soaks through before. The packing is of no value unless firmly applied. Under its use dilatation goes on with labor and practically without hemorrhage, the cervix being compressed between the packing and the presenting part. If the packing method was faithfully followed in every case as a routine measure, many cases which now bleed during dilatation till their condition be-

comes serious, would be kept in good condition for their subsequent operative delivery. Moreover, after removal of the gauze, the head, if presenting, not infrequently is found to be engaged, and normal labor or an easy forceps operation results.

The other expedient is bipolar version by the Braxton Hicks method, the os being dilated sufficiently to admit two fingers, which are passed into the uterus, seizing a foot and extracting it until the knee appears outside the vulva. Moderate traction on this leg brings the breech against the placenta, controls hemorrhage and hastens dilatation, and extraction becomes safe, usually after an hour or so.

I believe it is clearly demonstrated, on study of the conditions, that under modern methods of treatment and reasonable aseptic precautions, which it should be scarcely necessary now to mention, the mortality from placenta prævia is not over 10 per cent. in general, and under favorable circumstances, in skillful hands, it is below 5 per cent.; that abdominal section is rarely ever indicated; that it does not even in favorable cases hold out promise of better than 10 per cent. mortality; that its risks are much greater, and in unfavorable cases its mortality is prohibitive.

In my opinion the only cases of placenta prævia in which Cæsarean section are ever justified, are those at full-term, with complete prævia, with a rigid os and seen before the occurrence of any severe or dangerous hemorrhage, and with the mother and fetus in good condition. Such cases would offer the best opportunities and conditions for the recovery of both mother and child, would allow sufficient time for thorough preparation, and would, perhaps, be justified, and in the hands of experienced operators the mortality would be low.

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J. L. Andrews, M. D.:

The proper *position* of the patient *during labor* is most important. No one need expect that the much-discussed question of the best position in which to deliver a woman, whether on her back or on her side, is to be entered into here. Personally, the writer is much in favor of the lateral position. But, whatever the position, it is insisted that the vulva be thoroughly accessible to sight and touch. A disregard of this seemingly

trivial, but most important, point is responsible for many lacerations. A delivery at the bottom of a "well" in the middle of a feather bed means a lacerated perineum almost certainly. The obstetrician who delivers a woman, particularly a primipara, under the bedclothes, with a bad laceration resulting, can certainly not comfort himself with the "flattering unction" that "some" lacerations are inevitable. The perineum in labor is a tricky, uncertain quantity, and the eye is by far the best means for determining its dilatation, degree of dilatability, etc. With the spread of the belief that the obstetrician can in great part exercise his judgment as to the exact moment that the head shall be born, the number of perineal lacerations has grown "beautifully less." *



T. J. Carroll, M. D.:

Being a physiological process, says Comby of Paris, *teething* has little, if anything, to do with infantile troubles. Blackader, in a very excellent article in *Progressive Medicine*, does not mention teething at all, in speaking of infantile diarrheas, nor does Osler, nor in fact any of the authorities I have consulted. Leading pediatricists sneer at it as a sort of bogey man used to scare young mothers and inexperienced physicians. On the other hand, the laity look upon teething as the sum and substance of all the ills to which infancy is heir—and thereby often do a great deal of harm. Cases that should receive immediate and intelligent medical supervision are relegated to the care of an old negro mamma with the diagnosis of "only teething," and when a physician is finally summoned it is frequently too late to do anything. From such experiences we have become skeptical, and the pendulum of our opinion has swung to the opposite extreme; we do not believe that teething can cause anything. Now, it seems to me that in this, as in everything else, the safe stand is in the middle ground. Experience must have taught us that the simultaneous appearance of an infantile diarrhea with, or just previous to the eruption of teeth, must certainly be something more than a mere coincident. Blackader says: "All conditions which by depressing the

* From one of a series of articles on "Prevention of Laceration," in *N. Y. Med. Jour.*

vitality of the infant impair its digestive powers may to that extent be considered as predisposing to the occurrence of gastro-enteric disease." Certainly, then, teething can be classed as a predisposing cause of infantile diarrhea.

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David S. Funk, M. D.:

At a meeting of the Pennsylvania Medical Society Dr. Funk gave a résumé of the present status of pathology and treatment in some of the more important *complications of obstetric practice*. He said that the expectant mother of to-day finds herself surrounded by less peril than ever before in the history of the world, and in this statement he will doubtless be sustained by the profession. Certainly our knowledge is far greater, and the means at hand for anticipating and preventing evil are far superior, and so, in the main, are our abilities for grappling with these dangers when actually present. The whole tenor of his remarks is so frank and conservative, when discussing the attitude of the profession towards certain complications of obstetric practice, that his conclusion will receive the approbation of the great majority of physicians.

In discussing placenta prævia, it is shown, by the comparative rarity of this serious complication, that it is hardly possible for the general practitioner to become specially experienced in handling such cases. He agrees with the universally accepted practice that the indication in this complication is to empty the uterus as soon as possible. As to the best method of accomplishing this, is not so generally agreed upon. The writer evidently favors the most commonly adopted means of doing this by manual dilatation and version, while allowing that in some instances the Cæsarean section may offer better chances for both mother and child. Such instances, however, must be of excessive rarity. The objections urged against dilatation and version indicate that we are still far from anything like a perfectly satisfactory plan of treatment. The objections, exclusive of the high infant mortality (eighty per cent.) are, first, that it is frequently difficult to do and does not arrest hemorrhage; second, the fetus is always shocked from loss of blood from the placenta and from manipulation of the cord; third, the aftercoming head must frequently be perforated.

Symphiseotomy is compared with Cæsarean section as an operation of choice, and under such circumstances the weight of evidence is found in favor of the latter. Save in case of suspected infection, as where prolonged instrumental delivery has been attempted, the abdominal operation is to be performed. The mortality would seem to be even less in Cæsarean section, which, except in France, is superseding symphyseotomy.

In puerperal septicæmia, the author does not find that anything new in the way of prophylaxis has appeared during the last year, but very properly insists that the well-established principles governing complete asepsis be faithfully carried out. The ante-partum and post-partum douche, as a routine measure, in normal cases, he very properly considers as useless if not worse. In cases of manual delivery, or where, for any reason, the hand has been introduced within the uterine cavity, the intra-uterine douche has the countenance of some very excellent authorities. The writer calls attention to the well-known fact that prophylaxis in private practice has not been as efficient as in the hospitals. This he accounts for by the lack of detail and thoroughness in our method of securing asepsis upon the part of the general practitioner, the patient, and the nurse.

As regards the important question of treatment, the author assures us that repeated curetting and intra-uterine douching, with powerful germiciding agents, should no longer have a place. Disinfection of the vagina, the removal, if present, of any remnants of the placenta and decidua; douching of the intra-uterine cavity with normal saline solution, at a temperature of 110°, and packing with iodoform gauze are some of the measures which have received professional sanction. The operation of hysterectomy is considered to offer but scant prospect of relief in these cases; the same may be said of serum therapy, which is, as yet, in the experimental stage. Ectopic gestation would seem to be, in the opinion of this and other competent observers, of much more frequent occurrence than formerly supposed. In view of the great danger of delay in recognizing this complication, the author emphasizes the fact that the general practitioner should always be upon the alert,

that he may not mistake these cases for colic, dysmenorrhea, or ovarian congestion. The diagnostic points which should be especially borne in mind are a previous history of sterility, a sudden cessation of previously regular menstruation; irregular, but not excessive uterine bleeding; sharp colicky pains at frequent, but irregular, intervals, and, in some instances, nausea and vomiting. With such a history, a bimanual examination should be made; and here the points emphasized are the presence of a slightly enlarged uterus, a soft cervix, and the presence of a tender, more or less globular, mass to the right or left of the uterus, well up in the pelvic cavity. The two conditions most likely to be mistaken for an ectopic gestation are pyosalpinx and tubo-ovarian abscess. In considering puerperal eclampsia, attention is called to the widely divergent views held by various observers regarding the ætiology of this affection, one even going to the extent of declaring eclampsia a self-limited, air-born, contagious malady; all of which is sufficient evidence of the unsatisfactory state of our knowledge upon the causative factor. The usual prophylactic measures regarding diet and the use of large quantities of fluid are advocated. In the treatment of the attack, venesection and veratrum viride seemed to be much less extensively employed than formerly. Morphine and chloroform are still our most efficient weapons for the control of convulsions, while the use of normal saline solution, by any of the three methods of its introduction into the system, is uniformly commended and advised, and can be used in conjunction with any other therapeutic measures. It is hardly necessary to add that, in most instances, everything should be done to secure a prompt delivery.

Translations.

TUBERCULOSIS OF THE GENITAL ORGANS IN THE FEMALE.

Marie Gorovitz (Rev. de Chir.) sums up the chief points of a lengthy article on genital tuberculosis in the female in the following statement: (1) Tuberculosis of the female genital

organs occurs much more frequently than has hitherto been supposed. By the help of histological and bacteriological investigations, and of inoculation, many cases of this class of lesions which would formerly have escaped notice can now be diagnosed with precision. (2) Genital tuberculosis, though usually secondary, may be primary. The main object of the practitioner is not only to recognize the primary forms, but to make the diagnosis in the early stages when the lesion has made but little way. Examination of the secretions and of shreds of tissue removed by scraping (curettage) will, from this point of view, render very great service in cases of tuberculous endometritis. This affection, it is well known, is almost always consecutive to tuberculosis of the fallopian tubes, which is a much more frequent lesion. (3) The results of clinical observation and of surgical intervention show that tubal tuberculosis excites, on the side of the peritoneum, more or less marked reaction and, particularly a special form of peritonitis, with encysted effusion, known under the term of "ascites of young women"; (4) consequently, it is advisable in practicing abdominal section for tuberculosis peritonitis in the female to examine the uterine annexes, and to make sure of their condition; it will often be discovered that these were the starting points of the disease, and then, if it be possible, the affected organs should be removed; (5) this removal should be effected by the abdominal method, and the operator should aim at a free extirpation; the abdominal section will serve the double purpose of permitting removal of the original affection, and of acting with beneficial results on the peritoneal lesions; such treatment has, in the practice of Bouilly, been attended with decided success; (6) with regard to the pathogenesis of genital tuberculosis, this affection may be set up by the "descending way" or from the circulation, or by the "ascending way" and from without; (8) experimental researches made by the writer show that the tubercle bacillus deposited without injury on the mucous membrane of the genital apparatus is capable of germinating there, and of exciting the characteristic lesions of tuberculosis.

RUPTURE OF THE UTERUS.

Varnier (*Rev. de Gynéc. et de Chir. Abd.*) publishes 23 personal observations collected between 1885 and 1901. He divides them into two groups: (1) 1885 to 1897—11 cases of rupture of the uterus treated from below, that is to say, delivery of the child and placenta by the natural passages followed by plugging. The appalling result of 10 deaths to 1

recovery is recorded. (2) 1897 to 1901—12 cases, out of which 6 were treated from above by an exploratory and reparatory operation on the uterus; 3 recovered. In 6 remaining cases death supervened too early to allow of preparations for abdominal section. Varnier, on the above experience, insists that the extent of the rupture and its completeness or incompleteness can never be safely defined by palpation alone; an exploratory operation is, therefore, always needed. When the abdomen is opened, conservative treatment is to be rejected. The laceration of tissues interferes with repair, and, even when the uterine wound cicatrizes well, there will be danger of rupture through the scar during a future labor. The scar in this kind of case is different from the scar of the clean-cut wound through healthy tissues after a successful normal Cæsarean section.

Either Porro's operation should be practiced in a case of rupture, or else retroperitoneal hysterectomy with careful suturing of the torn peritoneum as well as of the flaps of the uterine stump. The scar should be kept against the abdominal wall and the vagina plugged. Pinard discussed Varnier's memoir, which was read at a Congress at Nantes in September, 1901. He considered that rupture of the uterus was always grave, whatever the subsequent treatment. In some cases the symptoms are ill-marked, the patient being a little restless and the pulse rapid. Even after rupture there may be no flooding, and the uterine contractions may continue and deliver the child and placenta spontaneously. The mildest-looking cases may end fatally, if treated from below only or "expectantly." In short, Pinard insists that, when once rupture of the uterus is diagnosed, abdominal section is indicated.

ACUTE PELVIC INFLAMMATION IN PREGNANCY: LABOR AT TERM.

Kleinwächter (Wien. med. Presse) reports at length a remarkable case showing how much the pregnant uterus will tolerate with impunity. The patient was aged twenty-eight, married eleven years; she had not been pregnant for over four years. About the beginning of April, 1900, she conceived; a month later irregular uterine hemorrhages set in, with pelvic pains on the left side. There was pain during defecation and micturition. By the third month the uterus was found fixed and firm and rigid, as though in tonic contraction. Both parametritic and perimetritic inflammation could be detected; in particular there was firm exudation behind the pubes. The patient was kept in bed for fourteen days, viburnum pruni-

folium was administered to counteract uterine contraction, whilst ichthyol and morphine tabloids were applied to the cervix, as there was much pain. All the objective and subjective symptoms shortly disappeared. The patient was delivered at term of a living child, and the puerperium was normal. This case shows how tolerant is a gravid uterus. That organ bore bleeding, exudation, and tonic contraction, which at one time almost effaced the vaginal portion of the cervix; there was also fever. This case also shows that perimetritis as well as parametritis may occur during labor, contrary to Veit's opinion. Viburnum seems an excellent uterine sedative in a case like the above.

RESUSCITATION.

Ogata (Sei-I-Kwai Med. Journ.) says that for use in small houses, as in Japan, for slight asphyxia in the newborn the method recommended is to strike the heart region with the extended fingers 10 to 15 times a minute. For deep asphyxia the child is held on its back, one hand grasping the feet, the other under the chest with the thumb and index over the shoulders. The trunk is then raised and fully flexed on the thighs, held so for three seconds, and then returned to the first position. It is then held by the feet alone, and the trunk allowed to drop back. The maneuvers are then repeated. The essentials of the maneuver are the same as in Dew's method, and the author has had the same good results as others who practice the various modes of resuscitation.

DELIVERY OF THE AFTER-COMING HEAD.

W. Nagel (Berl. klin. Woch.) describes a case of a labor in a subject whose pelvis was contracted to a high degree; and he uses the history of this case to exemplify the practical value of a method of delivery which he believes was first described by Van Hoorn (1715). The patient was a primipara, aged thirty-two years. On April 13, 1900, labor pains began, and after an hour the "waters" broke. She was a small woman, measuring only 4 ft. 7 in. in height, and showed ample signs of past rickets. The pelvic measurements were: dist. spin. ilii, 10 1-3 in.; dist. crest. ilii, 10 1-2 in.; conjug. ext., 5 3-4 in.; conjug. diag., 3 in. From these figures he estimated that the conjugata vera could not exceed 2 1-3 in. The fetus presented by the first vertex, and a large coil of the cord together with the left arm were prolapsed through the partly dilated cervix. The cord did not pulsate. The pains were strong, but

the head had not entered the pelvis. He chose to attempt the delivery per vaginam rather than by Cæsarean section, since the fetus was dead, and, with the conviction that it would be the least difficult procedure, he turned the fetus and perforated the after-coming head. The version was performed with ease, and the left foot brought down. As the buttocks of the fetus passed the inlet of the pelvis, the whole child rotated on its long axis, and the presenting leg was seen to lie to the front of the mother. The fetus was extracted as far as the shoulders in this position. The arms were brought down with much difficulty, and then it was found that the head was stopped above the inlet of the pelvis, with the chin resting on the symphysis to the right, and the occiput directed to the left. Seizing both legs, he brought the abdomen of the fetus forwards on to the abdomen of the mother. The occiput immediately entered the pelvis, and the left hand was now passed into the vagina, behind the buttocks of the fetus. The occiput was then perforated. The cranioclast was applied without much difficulty, and, aided by the continued anterior flexion of the whole of the fetus, the head followed. The whole operation occupied an hour and a half. The fetus (without making any allowance for loss of blood and brain) weighed nearly 5 1-2 lbs., and measured 19 1-2 in. There was a ruptured perineum, which was immediately attended to, but otherwise the patient bore the procedure well. She was able to get up on the fourteenth day. Nagel strongly recommends the method of bringing the fetus forward on to the abdomen of the mother in all cases of the after-coming head, when the face at the time of entry into the pelvis is looking forwards. By this means the birth can be rendered materially easier when perforation is not, as well as when it is, required.

MALIGNANT DERMOID OF OVARY.

Backhaus (Arch. f. Gynäk.) reports a case of unusual malignancy. The patient was a girl of seventeen, and the tumor had caused but little distention of the abdomen, but acute pain had set in suddenly when torsion of the pedicle was diagnosed. Ovariectomy was performed, and a solid tumor was removed; it contained very few cysts. This tumor was a dermoid of the type known as steatoma. The solid substance consisted of well-formed tissues mixed in inextricable confusion, not after the manner of dermoid growths within cysts where large patches of bone or thick tufts of hair are frequent. Skin, hair, cerebral material, bone, and plain muscle fibers were found collected together. It was noted that in the cystic portion

there was a distinct tooth, as is so common in dermoid cysts. As the tumor was clearly a malignant growth, the uterus and the opposite appendages were removed through the vagina on the twenty-fifth day after the ovariectomy. A month later signs of intestinal obstruction set in, and an operation was necessary. Six days later a fourth operation was needed. At the end of the third month after the first operation the patient had had headaches with vomiting. Agitation and convulsions set in, and subsided a little, to recur in greater force. Indurated masses could be felt in the upper part of the abdomen and in both supraclavicular regions. Death occurred in a few days, but no necropsy was allowed.

MALIGNANT CHORIO-EPITHELIOMA OF THE VAGINA WITH NORMAL UTERUS.

Schmit (Wien. klin. Woch.) in 1900 reported a case of malignant chorio-epithelioma (syncytioma malignum) which affected the vagina alone, the uterus being healthy. The woman, aged thirty-six, had a molar pregnancy, which ended in the spontaneous extrusion of the mole in November, 1899. Three months later two vaginal nodules appeared, which proved, on microscopical examination, to be typically chorio-epitheliomata. As the uterus was healthy, they were simply excised. Eighteen months later the woman was in perfect health, menstruated regularly, and never suffered from metrorrhagia.

The writer now describes a second case. A woman, aged forty-one, aborted at about the seventh week of pregnancy on November 30, 1900. There was copious hemorrhage, which was arrested by the removal of chorionic fragments with the curette. Up to January 19, 1901, she was in good health, except for a slight blood-stained discharge. On that date there was a second violent hemorrhage, and on January 24 a third, which was arrested only after plugging the vagina. It was then noticed that there was a nodule on the anterior vaginal wall. The uterus was retroverted, but otherwise normal. A finger-breadth in front of the cervix was a hemispherical bluish tumor, which was the size of a hazel nut and projected under the vaginal mucosa, which was absent at the greatest convexity; a small ulcer with sharply cut edges resulted, through which there projected a dark-brown tenacious coagulum. The tumor was fairly soft, and was movable with the mucous membrane. The normal uterus and appendages, with the absence of hemorrhage from the os, made it practically certain that the tumor was primary, and not a metastatic growth. It was, therefore, excised, the uterus being simply curetted. The shreds removed

from the uterine cavity showed no evidence of malignancy. The extirpated vaginal tumor had a diameter of about four-fifths of an inch, consisted chiefly of coagulated blood, and had no definite capsule. Near its center, but approaching the surface covered with perivaginal connective tissue, was a whiter spot of loose fibroid tissue. Microscopically this consisted of well-preserved chorionic villi, some of which had undergone hydatidiform degeneration, and lay free in the thrombus. These villi were covered with actively proliferating epithelium, the cells of which belonged both to Langham's layer and to the syncytial masses, the two varieties being everywhere intermixed in various proportions. The stroma of the villi was unaltered. In the coagulated blood surrounding them were isolated masses of tumor cells. The coagulum was a small hematoma, and was not a thrombus contained in any vessel; on the contrary, it enfolded a small artery, into the wall of which some syncytial cells were penetrating. The whole coagulum was surrounded by a small-celled infiltration.

The diagnosis of primary vaginal chorio-epithelioma was confirmed by the patient being in perfect health eight months after the operation. That the chorion had undergone malignant degeneration within the uterus, but had been extruded without giving rise to a malignant tumor of the uterus, is almost inconceivable. It is probable, therefore, that benign chorionic villi may become detached during pregnancy or labor, and be carried by the circulation into the vaginal vessels, where, if a suitable nidus is found, their epithelium may proliferate and form a malignant tumor.

In the writer's second case it could not be ascertained whether the ovum had undergone hydatidiform degeneration, though the presence of hydatidiform villi in the vaginal tumor rendered a molar pregnancy probable. Hydatidiform degeneration, however, is not a necessary forerunner of chorio-epithelioma. Primary vaginal chorio-epitheliomata are exceedingly rare. Lindfors has recently reported a case in which there was a vaginal tumor and the uterus was healthy. The tumor was excised. Six months later the patient died. There was a large chorio-epithelioma of the left lung, with metastatic growths in the right lung, the spleen, liver, kidneys, brain, and intestine. The uterus, appendages, and vagina were healthy. It is probable that villi were transported from the placenta to the lung and vagina simultaneously. According to Kolisko these tumors were formerly known as thrombus or varix vaginæ. The blood in which they usually lie is not, however, due to thrombus of a varix, but to extravasation from an eroded vessel.

SUBCUTANEOUS EMPHYSEMA PRODUCED BY
LABOR PAINS.

Székelly (Pest. med.-chir Presse) reports the following case: A primipara, aged twenty-nine, was said to have suffered from cough, pleurodynia, and occasional hemoptysis eighteen months before delivery. The last menstrual period was on September 1. She had coughed during the early part of pregnancy, but for some time before labor commenced had been in good health. With the onset of pains on June 2, the cough reappeared. On June 4 the os was fully dilated, and the pains were extremely strong. At 4 a. m., during one of these, the right side of the neck and face became suddenly swollen, and the right eye was closed by the enormous eyelid. Until the birth of an unusually well-developed male child at 1 p. m., the subcutaneous swelling steadily increased. On the third day of the puerperium the patient's face was greatly swollen, and the circumference of the head was double the normal. The skin of the neck, chest, back, and right arm was enormously distended, and the swelling was continued over the abdomen as far as the pubes. The swelling affected the right side more than the left. The skin was of a normal color, and felt like an air cushion. There was crepitation, but no heat or tenderness. Recovery was complicated by a gangrenous vaginitis, which resulted in a vesico-vaginal fistula. The face regained its normal outlines in a week, and the whole of the subcutaneous air was absorbed within three weeks. The heart was normal and no disease could be detected in the lungs. The woman was well developed and well nourished, and the pelvic measurements were normal.

The cause of the emphysema was probably rigidity of the soft parts combined with an abnormally large child. These factors possibly acted on a lung already weakened by bronchitis or pleurisy. There were no grounds for assuming that tuberculosis was present. Subcutaneous emphysema is a rare complication of labor. Klots has collected 38 cases, of which 93.93 per cent. occurred in primiparæ. The air always appears in the first instance under the skin of the neck, to which it spreads from the anterior mediastinum, which it reaches in turn from the ruptured subpleural vesicles. Predisposing causes are contracted pelvis, rigidity of the soft parts, or abnormal development of the fetus on the one hand, and disease of the lungs, especially tuberculosis and pleurisy, on the other. Emphysema may occur, however, with perfectly healthy thoracic organs.

The enormous development of the emphysema in the writer's case was due to the time which elapsed between its appearance

and delivery. To prevent the further entrance of air, labor should be terminated as quickly as possible.

PUERPERAL GANGRENE.

Hagemeyer (Wien. klin. Rundsch.) reports the case of a woman, aged forty, who had suffered from cardiac symptoms for eight years, since an attack of influenza. During the fourth pregnancy she had an attack of right hemiplegia and aphasia, from which she recovered completely in five days. Nine days after a premature labor in the seventh month the right leg became weak and anæsthetic. There was great pain, but no swelling or discoloration of the skin. Complete recovery followed with rubbing and the application of heat. In the fifth pregnancy there was copious hemorrhage, and a fortnight later she was delivered of a living eight-months child. On the ninth day there was a sudden sensation of tiredness in the left leg, which rapidly became completely anæsthetic and cold below the knee. There was neither pain nor swelling until the evening, when the leg was raised.

The next day some blue patches of discoloration appeared on the dorsum of the foot, and somewhat later the toes became dry and waxy, and the foot and the lower part of the leg were of a bluish-brown color, and covered with scattered bullæ. About 1 1-2 inch below the knee was a well-marked line of demarcation. Movement and sensation were completely abolished.

Eight days after the first symptoms the leg was amputated at the junction of the lower and middle thirds of the thigh. The divided vessels were healthy. The wound healed by first intention, and the patient recovered. The popliteal artery contained a dry adherent fibrinous mass which completely occluded its lumen just before the bifurcation into the anterior and posterior tibial arteries. Every artery in the leg was thrombosed, and the veins also contained thrombi, which, however, were not adherent, and were probably secondary. The pulse was small, frequent, and irregular, and the cardiac dullness was enlarged to the right. At the apex, which was in the fifth intercostal space slightly outside the nipple line, was a systolic murmur, which was also heard in the third left interspace. The character of the pulse and the irregular action of the heart pointed to the presence of advanced myocardiac degeneration, and the systolic murmur was probably due to secondary mitral regurgitation. Probably a thrombosis formed in the left ventricle and produced embolism of the popliteal artery. Doubtless the hemiplegia in the preceding pregnancy was due to cerebral embolism, and it is probable that the post-partum anæsthesia

and weakness in the right leg was also caused by temporary or incomplete obliteration of the popliteal artery.

Puerperal gangrene is rare, and not more than 21 cases have been reported. Of these, 3 were complicated by endocarditis, which in 2 cases apparently arose during the puerperium, but in the third had existed as mitral regurgitation for years. In these embolism was probably the exciting cause of the gangrene. In 2 cases Raynaud's disease was probably present. Excessive hemorrhage, or coagulability of the blood, sluggish circulation, and the immobility of the leg muscles during the lying-in period are predisposing causes, and may produce thrombosis either in the heart or vessels. In most cases both arteries and veins have been thrombosed. Gangrene may also be due to phlegmasia alba dolens, especially the septic variety. In many cases, however, the ætiology has been obscure. The prognosis is fairly good in the dry forms, but is bad in the moist and septic cases. In the dry variety amputation may be deferred until a line of demarcation has formed; in the septic, moist, and spreading form, accompanied by pyrexia and a frequent pulse, it should be performed immediately well above the disease.

Book Reviews.

OUTLINES OF GYNECOLOGICAL PATHOLOGY AND MORBID ANATOMY. By C. HUBERT ROBERTS, M. D. Lond., F. R. C. S. Eng., M. R. C. P.; Physician to the Samaritan Free Hospital for Women; Physician to Out-Patients, Queen Charlotte's Lying-in Hospital; Late Demonstrator of Midwifery and Diseases of Women, St. Bartholomew's Hospital. 151 Illustrations. Philadelphia: P. Blakiston's Son & Co., 1901. Octavo, 330 pages. Price, Cloth, \$6 net.

This volume is a very important contribution to the subject of Pathology as well as to gynecology, for this is an age when surgical history is being almost daily varied by overturning and discarding old principles and methods of treatment. These changes are being wrought largely by a more careful study and better comprehension of pathology. Thus a carefully written work, with over one hundred and fifty illustrations of pathological conditions, mostly original, drawn from actual specimens, should receive a most cordial welcome from workers in the field of gynecology.

A HISTORY OF MEDICINE. Being a Brief Outline of Medical History and Sects of Physicians from the Earliest Historic Period; with an extended account of the New Schools of the Healing Art in the Nineteenth Century; and especially a History of the Eclectic Practice of Medicine. By ALEXANDER WILDER, M. D. New Sharon, Me.: New England Eclectic Publishing Co.

This is a most interesting and consecutive history of medicine from archaic times to the present. It is exceedingly entertaining reading, and as a compact account of the healing art treats the subject from a very catholic view point. The various conditions, dogmas, and "isms," the curious tangents of the medical mind in the different periods of the world's history, are faithfully given. This volume will be exceedingly valuable as a record, notwithstanding the prominence given the Eclectic School of Medicine.

THE BABY: HIS CARE AND TRAINING. By MARIANNA WHEELER, Superintendent of the Babies' Hospital of New York. Illustrated. New York: Harpers & Brothers, Publishers.

The object of this book is to equip young mothers with practical information necessary to the care of children at home, and to make of the mothers competent nurses, not doctors. No instruction in medicine or surgery is given, and the domain of the physician is not intrenched upon in any way. In this respect it differs from almost every work of this kind that we have seen, and we can commend its general recommendation as a splendid guide for the purpose it was intended, *i. e.*, nursing.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY FOR 1902. A Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, under the editorial charge of George M. Gould, A. M., M. D. Vol. I. Including General Medicine, octavo, 700 pages, illustrated; Vol. II. General Surgery, octavo, 684 pages, illustrated. Philadelphia: W. B. Saunders & Co., 1902. Per volume: Cloth, \$3.00 net; Half Morocco, \$3.75 net.

The plan of issuing the Year-Book in two volumes met with such general favor with the profession that the publishers have decided to follow the same plan in succeeding issues.

The contents of these volumes are made up from journals, monographs, and text-books, and are edited and commented on by eminent specialists, so that the reader obtains not only

a digest of the past year's progress in medicine and surgery, with reference to the original articles, but the valuable criticisms of the editors in addition. In the volume on Medicine the articles are well condensed, the articles on Fevers, Tuberculosis, and Bacteriology, are to be specially commended, while in Vol. II., devoted to Surgery, the sections on Anæsthesia, Surgery of the Stomach, and that of the Kidneys, Ureters, and Generative Organs deserve especial mention.

ANNOUNCEMENT.

Arrangements are rapidly completing for making the meetings of the American Institute of Homeopathy in Cleveland a success long to be remembered. The local profession welcomes every member, and promises that in the matter of hotels, railways, entertainments, and the like, no disappointment will be experienced. One of the principal features of the week's meeting will be the coming together of the various college alumni, forming a grand College Alumni Association, who will have special rooms assigned them in the Hollenden Hotel, and one evening will be devoted to a "round up" with general jollification, music, singing, and speeches. On another evening a reception, ball, and banquet will be given at the Colonial Club on Euclid Avenue. The usual first-night opening services, addresses of welcome, President's address, etc., will be held in the Chamber of Commerce Building, where all the meetings of the Institute will be held. The memorial exercises are also suitably provided for.

On Saturday the Erie Railway has tendered an excursion to Cambridge Springs, Pa., where the visitors will be the guests of the Hotel Rider. During June Cleveland is famed for its beautiful weather and its cool sleeping nights. It is justly called the "Forest City" with its miles and miles of paved and shaded streets for driving, walking, and bicycling—a boulevard system connecting its many beautiful parks and waterways, and an unparalleled system of trolley lines. The meeting place and the hotels are adjacent and in the very heart of the city, accessible to the railways, places of amusement, the principal stores, and points of interest. A cordial and most hearty welcome is extended to every homeopathic physician—and his wife—to meet in Cleveland this summer with the American Institute of Homeopathy.

GAIUS J. JONES, M. D.,
Chairman Local Committee.

THE HOMEOPATHIC JOURNAL OF OBSTETRICS, Gynecology and Pediatrics.

EDITOR, WM. FRANCIS HONAN, M. D.,
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VOL. XXIV.

THE EASEMENT OF LABOR BY USE OF HEAT AND THE HOT-WATER RETAINED INJECTION.

BY WILLIAM A. GALLOWAY, B. SC., M. D.

It is not the purpose of this paper to discuss the causes responsible for certain difficulties now frequently met with in parturition, especially among higher classes of society, but rather to present a way to meet them, in which heat performs an important part.

The proper and systematic use of heat for the alleviation of pain in labor is both helpful and rational; hot water, the means used, contains no possible element of harm and can be obtained in every home, however lowly.

Two important elements enter into the general management of labor; i. e., for the physician, the possession and use of resources by which timely assistance is given and valuable time saved; and for the patient, easement of labor pains, cleanliness, shortening of her period of parturition, and rapid convalescence as a sequence. It is the right of the patient to expect these, and the duty of the physician to furnish them.

In easy and natural parturition the rapid dilatation of the os

uteri and relaxation of the perineal muscles are synchronous with the contractions of the fundus uteri and the muscles of the abdomen; the child's head and the diameter of the pelvic inlet offering but slight resistance, these muscular contractions are neither prolonged nor exhaustive.

The most frequent difficulties in the way of easy and natural parturition are: the continued resistance of the muscular fibers of the os against dilatation; the obstruction offered by scant or slightly irregular diameters of the pelvic inlet; a large or incompressible head; and the lesser resistance of the muscles of the perineum to the exit of the head and shoulders.

Two of these difficulties yield readily to the use of hot water and gentle digital dilatation; the others can be eased by the rational use of forceps.

The application of heat for the alleviation of pain has been known and used from early periods of medical history. It is a simple and effectual means, useful in a large number of ailments; moreover, heat and moisture are such familiar agents in the relief of pain and the prevention of shock, that any means extending their services will naturally enlist the interest of the profession.

The use of heat in confinement is employed by many physicians to the extent of the limited means at their command. The patient's discomfort can often be alleviated by applying cloths wrung out of hot water to the perineum, hot flannel compresses to the abdomen, and hot-water bottles to the feet. Douching the vagina is practiced by some physicians to a limited extent, but the facilities for doing so with comfort to the patient are limited, and the normal secretion of the vaginal glands is washed away, without sufficient stimulation for resecretion, an important condition to be maintained during the second stage of labor.

The means herein described meet these objections in practice. Some years ago the writer devised and had constructed for his personal obstetrical work a rubber bedpan, with a continuous inflatable rim and a sagging bottom, with a drainage way attached. After various embarrassing experiences with the pail into which the drainage emptied, it was abandoned, and a tight rubber bedpan substituted.

This pan was much more satisfactory, yet the patient often complained that the inflated rim hurt her back. When the pan was slipped down to obviate this, the rim was flattened by the weight of the hips, and the clothing and bed were consequently soiled by back-leakage, notwithstanding these disadvantages, much comfort and cleanliness were obtained by its careful use.

Recognizing the great value of heat in labor, the writer's brother, Dr. C. M. Galloway, extended the use of this pan, making it a receptacle for receiving injections of hot water, made into the vaginal tract and retained between pains, by compressing together the sides of the vulva. The result in comfort to the patient and shortening the period of labor, particularly if a dry one, was so marked that observation of this method was made as readily as the opportunities of a double practice offered.

This followed two experiences ten years since when a severe hourglass contraction was relaxed rapidly by hot-water injections against the constriction, and a tedious confinement of an old primipara was relieved by retained hot-water injections. In both these cases the hips were elevated on a pillow, and the returning hot water was caught in an ordinary tin basin.

For obtaining more perfect results from the use of hot water in the easement of pain and nervousness during labor, it became necessary to devise an obstetrical pan, embodying suitable elements for the use of heat to the back as well as to the pelvic organs.

To the inflatable rim of a general design used in the first pan, I have added—with the courteous aid extended me by The B. F. Goodrich Company—a bottom deep enough to accommodate the hips to uneven surfaces in a bed, without kinking the rim and thereby breaking down its dam. The bottom is joined with a rounding attachment to the under surface of the rim, so that there is no crease at the line of its juncture to the rim, for lodgment of any foreign matter, the scouring brush and water easily reaching every portion of the pan. By the attachment of an ample hot-water pad to the back of the pan, heat and support are afforded to the back and a perfect dam formed, re-enforcing the rim at its heretofore leaking point under the back and hips.

With this description of the Galloway Obstetrical Pan, the

technique of the use of heat and hot water through this means, and a note of the general results following, will be of interest (Fig. 1).

When true labor is begun and the os dilated the size of a dime or quarter of a dollar, a quart or more of hot water is put in the water-pad, the water-valve closed, and the pad blown quite full of air; the rim is inflated, the pan rinsed with hot water, dried, and put under the patient. The air in the water-



FIG. 1.—The Galloway Obstetrical Equipment. Showing the pan and attached hot-water pad, syringe, douche, and rubber tampon bag.

pad may then be let out through the air-valve until the patient indicates that the support to her back is comfortable (Fig. 2). By the heat thus applied the nagging back pains, and nervous phenomena from this cause, familiar to all obstetricians, are eased, and the vexing character of this part of labor is greatly relieved. The hot-water pad is also helpful as a body rest and a back support, and after delivery, when the pan is cleansed, the pad can be used as an ordinary hot-water bag, until the physician is ready to depart.

With the dilatation of the os above noted, a series of four or five retained hot-water injections is given; the douche is carried up into Douglas' cul-de-sac, and the vulva closed around

it with the thumb and first finger of the hand not occupied with the syringe, or by lightly pressing one side of the vulva against the other with the fingers (Fig. 3). One pint or more of hot

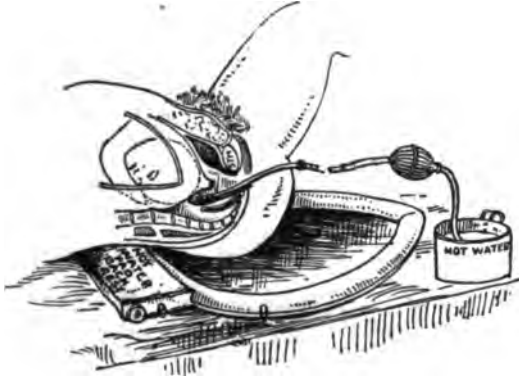


FIG. 2.—Position of the hot-water pad, back-rest, and of the douche in Douglas' cul-de-sac.

water, bearable to the hand, is gently pumped into the vagina thus closed, and as much of it as possible is retained from the completion of one pain until gently expelled by the bearing

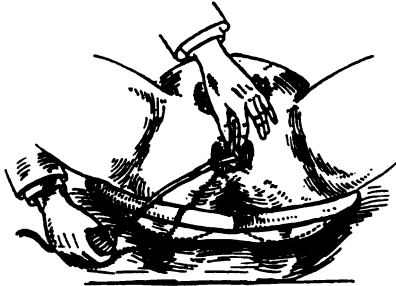


FIG. 3.—Method of holding retained hot-water injections between pains, by compressing the vulva around the douche. The cut shows also the sagging bottom of the pan, which accommodates itself to depressions in the bed, without kinking the rim.

down of the next. After the third or fourth injection the os will begin to relax, and during each pain it can be progressively dilated by carrying the index and middle fingers, with an upward pressure, around its circumference (Fig. 4). This can be

done while the physician is sitting on the side of the bed in the usual position.

After completing the first series of hot-water injections, a rest of ten minutes should be taken, then a second series of the same number should follow, during which gentle and progressive dilatation can be accomplished with each pain; the light force required is effective as applied with the fingers to the inner circumference of the os. A pain is not materially in-



FIG. 4.—The use of the fingers in dilating the os, after it is relaxed with hot-water injections.

creased by this assistance, and the tissue of the os is not damaged.

Upon completing this second series of injections, the os can soon be slipped over the occiput, or sufficiently enlarged to admit the easy application of forceps, should the necessity to use them arise. The vagina, clean of all *débris*, then becomes thoroughly lubricated with fresh secretions from the stimulation of the retained hot-water injections. The vaginal walls and perineal muscles are relaxed, and the physician is given early opportunity to assist in the four difficulties noted, and to greatly shorten the time occupied in labor.

When the head is engaged in the pelvic inlet, hard and exhaustive labor is often encountered. The delay here may not be wholly due to scant or slightly irregular pelvic diameters; the child frequently contributes by large head diameters, or a hard, incompressible head, or both.

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These conditions can be relieved by skillful assistance with forceps, otherwise the prolonged abdominal and uterine contractions necessary to force the head through the inlet contribute largely to exhaustion and subsequent tedious convalescence. It is time to use the forceps when it becomes evident that the child's head is lodging in the inlet. No damage need occur, either to the head or to the soft tissues of the pelvis; the ordinary position of the patient during accouchement permits their easy application and use, the pan is not in the way, and neither it nor the position of the patient should be changed. Gentle traction made during each pain, with the physician

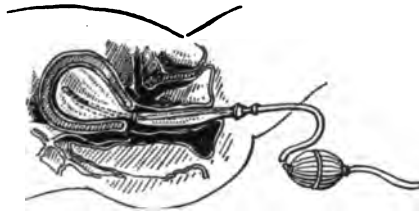


FIG. 5.—The use of the inflation bag in post-partum hemorrhage, as an emergency tampon.

standing at the side of the patient, is usually sufficient to give all the aid necessary.

After its relaxation by heat, the perineum should be stretched in advance of the head, by making downward pressure with two fingers and carrying them frequently across the fourchette. During the birth of the head, it is of frequent advantage to support the perineum with pressure upwards. The birth of the shoulders should always be watched and managed. They are responsible for many perineal tears.

If it is not thought necessary to assist in dilating the os, or in stretching the perineum, or to use the forceps, labor is yet greatly assisted by the anæsthetic and relaxing effects of the retained hot-water injections, and by the comfort and support of the hot-water pad to the back.

In these injections the hand determines the degree of heat. Water too hot for the hand should not be used for the injection. The patient will frequently request that some of the hot

water be left in the pan because of its comfort to her hips. The pan is emptied of the hot injection water as often as necessary by reversing the syringe and pumping out into a convenient vessel or by removing it in the ordinary way. Boiling water can at any time be pumped through the syringe to render it aseptic (Fig. 7). When full dilatation of the os has taken place, hot-water retained injections are discontinued; an infla-

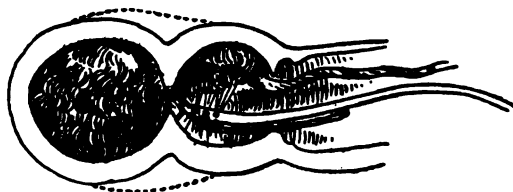


FIG. 6.—The position of the douche against the constriction, for relaxing hour-glass contraction by the use of the hot-water injection.

tion bag made from the highest grade of Para rubber, after aseptic preparation, is slipped over the douche and made fast at the end by a slip-ring; with this at his side the physician has an immediate tampon for post-partum hemorrhage. A free slip-ring is placed about equidistant from each end of the bag, the bag dampened in water, passed upward into the uterus and inflated with air first, then cold or hot water sprayed into it, if desired (see Fig. 5).

This is an emergency tampon for use until the physician can decide what else, if anything, is needed. For the relief of hour-glass contractions the douche is passed up the vagina and carefully insinuated between the placenta external and the constricting band until its tip rests against the constriction; in this position hot water is gently and intermittently thrown against the contracted womb until it relaxes. The pan forms a perfect receptacle for the escaping water; the syringe and the douche are accessories always at hand for use in this trying situation (see Fig. 6).

The proper use of the anæsthetic and relaxing qualities of heat is the principle about which this method centers; its corollary is that the physician is continuously present at the

bedside helping his patient, a fact in itself of great advantage to every physician in the successful conduct of accouchement. The further question arises as to the proper antiseptic care of the rubber obstetrical pan. Two points are essential: First, that these pans should be made only of the highest grade of suitable smooth rubber, which can, when desired, be cleansed with boiling water. This grade of rubber is expensive, compared with that ordinarily put in surgical pans



FIG. 7.—After delivery of the secundines, the hips are raised and wiped dry with a clean cloth; this is dropped into the pan, which is then turned cross-wise, and is easily removed and emptied.

made in commercial competition. To control the quality of rubber used in this obstetrical pan, the writer retains letters patent upon it. Second, the general care of obstetrical pans when they are not in use. The Kelley pan is a landmark in obstetrical progress, but certainly the use of the class of rubber found in many pans now manufactured was never contemplated. The writer has too frequently observed these pans hung up on any convenient nail in the open air and dust of a back office, or a catch-all room, or worse yet, in a closet with last year's buggy robes or over-

coats, and then heard them condemned for carrying sepsis to the lying-in room.

Unquestionably such exposure of rubber to air will quickly crack or craze it, and contact with such companions will quickly infect it. The proper care of an obstetrical or surgical pan is simple—not tedious or burdensome. Wash with hot water, then dry with a clean towel before placing the pan under the patient; this requires only a few moments. Soap and hot water are sufficient and ready means for cleansing after accouchement, providing, of course, that every part of the pan is accessible. Subsequent office care is easy, and requires attention only when the physician has leisure.

For this purpose a three-gallon jar or galvanized iron bucket, filled with two gallons of clean water, is a proper container for rubber pans or other good rubber goods. One or two teaspoonfuls commercial carbolic acid, one teaspoonful boracic acid, one teaspoonful gum tragacanth are added to the water; the pan is allowed to remain in the bucket for two or three days; it is then taken out, thoroughly rinsed and wiped dry, wrapped in a clean napkin, and put in an obstetric bag or in a clean drawer or instrument case, protected from air and dust, until needed for use. When taken out of this solution the rubber should have a slight odor of carbolic acid. With this easy care good rubber can be kept perfectly clean and its life extended much beyond the usual limit. With the two methods for asepsis herein given, if the best grade of suitable smooth finished rubber only is used in the making of an obstetrical pan, there need be no fear but that a perfectly aseptic pan is ready in every case of delivery. If to this is added the complete cleanliness of patient's bed and clothing and the easement and shortening of her period of labor, much indeed is at hand to aid the patient in parturition and save valuable time to the busy physician.

RETRO-MISPLACEMENTS OF THE WOMB.

BY C. E. COLWELL, M. D.

During the World's Fair session of the American Institute of Homeopathy here in Chicago I heard a physician state that "a patient of his had suffered from a misplacement of the womb; that for it he prescribed sepia, and that she had reported to him that 'it was a wonderful remedy; that after she had taken two or three doses that she had felt the womb rise up and right itself.'" Wonderful indeed! Equally wonderful to me was the fact that some member of the Institute did not arise and remark upon the unreasonableness of such a happening. That patient was either blessed with a very vivid imagination, or else she had no misplacement.

Retro-misplacements, with the conditions that cause them and the conditions that grow out of them, cause women the most discomfort of all ailments to which they are liable, and tax the attending physician's skill and patience to their utmost.

By retro-misplacements we mean the tipping backward of the fundus uteri, and includes retro-version and retro-flexion.

Preliminary to discussing the causes of retro-misplacements, let us take a look at the normal anatomy of the uterus, its supports, and position. Like an inverted pear in shape, it is grasped at the junction of its lower and middle thirds by a cross-shaped hammock of fibrous and peritoneal tissue. The lateral extensions of the hammock are the broad ligaments, which anchor it quite firmly to the sides of the pelvis. The posterior cross of the hammock are the utero-recto-sacral folds of the peritoneum and fascia. These guys run backward to, and around, the rectum, to the sacrum. The anterior end of the cross runs forward to the back of the bladder and then upward to the anterior abdominal wall. This hammock holds the womb at its proper level and supplies its principal support. The round ligaments, running from the cornu of either side outward and forward like guy ropes, furnish the chief support against retro-misplacement.

Some support is furnished by the walls of the vagina, such as would come from the resistance to doubling or buckling of

a rubber tube. The womb normally lies more nearly horizontal than vertical, and the cervix points backward and rests

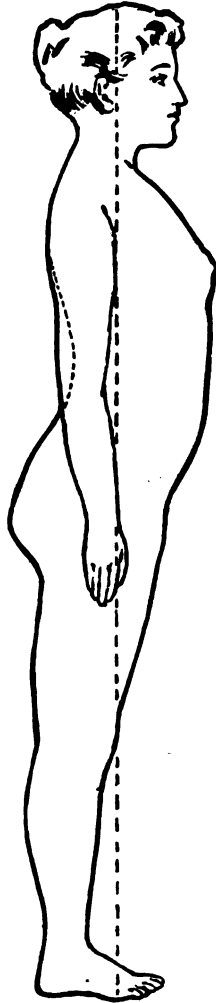


Fig. 1.—Proper position. Line of weight through ball of foot, chest forward, shoulders and head back.



Fig. 2.—Corset contracting waist and crowding abdominal fat and abdominal organs downward on to pelvic organs.

against the rectum. When the bladder is empty the position of the womb is nearer the horizontal; when the bladder is full it approaches nearer to the vertical position.

A straight line projected downward from the front of the abdominal part of the spinal column of the erect woman, should fall either in front of, or through, the symphysis pubis. Consequently the weight of the bowels, which are suspended by their mesenteries from the front of the spinal column, falls directly upon the tubes, or forward against the inner surface



Fig. 3.—Improper position of standing. Sacral curve lessened, shortening of anterior line of trunk, crowding downward of abdominal organs.



Fig. 4.—Corset-contracted waist. Misplaced parts are consequently crowded downward.

of the muscular front of the abdomen. In the erect woman who stands correctly, and consequently has the normal curves in her back, the uterus lies beneath the forward-projecting sacrum and its promontory, which make a roof to protect it from the downward pressure of the abdominal viscera.

Retro-misplacements are due, as a predisposing cause, to a large roomy pelvis and its necessarily long ligaments, more liable to stretch than the shorter ones; to faulty position in standing; to wearing heavy skirts or tight corsets; to faulty position when sitting, especially when wearing corsets (observe how even a loose corset breaks at the waist, when its wearer bends forward, and how, consequently, it crowds downward all of the abdomen below the waist); to prolapse of all abdominal organs; to loaded and prolapsed rectum; to permitting the bladder to become persistently too full; to falls

on the back or nates; to surrounding inflammations and resulting pressure of exudates or drawing due to inflammatory contractions; to tumors; to laceration of the cervix and subsequent catarrhal swelling and extra weight of the womb; to laceration of the perineum; and to womb excessively engorged with blood of all the pelvic organs. Usually, more than one of these are the causes. The symptoms vary from slight pressure, or discomfort, to such a multiplicity of local and reflex symptoms as to cause general invalidism. Bladder, rectal, ovarian, uterine, renal, gastro-intestinal, heart, lung, mental, and nervous symptoms, may all be present, due to the displacement and its causal, or resultant, conditions. Most constant and suggestive of this condition are pelvic pain and pressure, backache, and occipital, or vortex headaches. But inasmuch as these symptoms may all be caused by other forms of misplacement, or ovarian derangement, or a metritis without misplacement, the only means of determining what the cause may be is to make an examination. Hence, sooner or later, examine every patient complaining of symptoms pointing to pelvic disease. The finger and its sense of touch tell the story. Examine virgins per rectum first. If you cannot replace the misplaced organ via the rectum, then carefully use the vaginal route. You will find the uterus out of place, varying through all degrees from a vertical to that of upside down, with the fundus just within the vulva. To replace the womb will oft-times tax your dexterity. Have your patient empty her bladder, then have her lie on her back, with head and shoulders elevated, knees flexed and separated, and feet close to the buttocks, in order to relax as much as possible the abdominal muscles. Stand at the end of the table, or sit on the couch below the feet, facing her. Introduce the first and second fingers of one hand. Press their tips against the fundus, and crowd upward toward the sacrum, and forward toward the pubes, endeavoring to sweep the fundus in a curve corresponding to the sacral curve. After carrying the fundus as far forward as possible in this manner, flex the first finger, bring it in front of the cervix and crowd the cervix backward. This will right those that are the most easily replaced. Some you can carry to but about what would be a perpendicular, if the

woman were on her feet, by this method. Now, have her get over into the knee-chest position, and again crowd the fundus toward the pubes, at the same time having her breathe long, full, and deep, hold the ribs elevated, and expel the air from the lungs by sharply drawing in the abdominal muscles, and driving the diaphragm upwards. You will at the same time hook one finger of the other hand into the vulva and stretch the vulva open in order to let air into the vagina. The upward suction on the abdominal organs, from the breathing, the pressure of the finger tips, and the air-filled vagina, will often finish the replacement. If this does not accomplish what you desire, have her again lie on her back as at first. Crowd the fundus upward and forward as before. At the same time grasp the cervix between the flexed index finger in front of the cervix and the extended second finger behind the cervix, said second finger still crowding the fundus forward, and endeavor to pull the whole organ downward, in order to free it from the sacral promontory. Now crowd the fingers of the other hand deep into the abdomen above the womb, and roll the fundus downward toward the pubes until strongly ante-flexed. As soon as the fingers of the external hand have gotten behind the fundus, slip both the internal fingers below and in front of the cervix and crowd the cervix upward toward the sacrum, at the same time lifting the whole organ forward.

You may not be able to get the external fingers at first behind the fundus. With internal fingers carrying the fundus and whole womb as far forward as possible, push the fingers of the external hand as deeply as possible into the abdomen at the navel, and crowd all of the abdomen below that downward. By so doing, the bowels may catch the fundus and roll it downward so that the fingers may get behind it. If these proceedings do not suffice, it will be necessary to use a vulsellum, or some form of intra-uterine elevator. In such cases I do no more that day, but send my patient home with some bichloride tablets, with instructions to take a large douche of hot water, with one heaping teaspoonful of soda to each quart of water, for the purpose of cleansing away all leucorrhœal discharges, to be followed with a two-quart douche of 1 to 2000 bichloride. This on the evening before she comes to me—and to repeat

the whole procedure within two hours before coming to me. When she now appears I sterilize my instruments and hands.

If the vulsellum forceps be chosen I grasp the anterior cervical lip and draw sharply downward to straighten the flexion, and to free the womb from the sacral promontory, and then proceed with the bimanual methods already described. The use of the vulsellum I do not favor unless the woman be anæsthetized, or unless pregnancy be suspected.

To use the intra-uterine elevator I place my patient dorsal recumbent, insert a bivalve speculum, and ascertain the direction and size of the uterine canal with a flexible Simpson's sound. I now insert, usually, a No. 11 Pratt stiff sound, and withdraw the speculum. I rotate the sound, which carries the fundus forward, so that the uterine cavity's concavity is forward. I now carefully depress the handle of the sound, using either one finger in the vagina as near the cervix as possible as a fulcrum, or use the perineum as a fulcrum. At the same time I pull the sound and womb gently downward, to free the fundus from the promontory of the sacrum. The concave extremity of the sound keeps the womb from slipping off of the sound. If I cannot get it this way, I have my patient carefully turn upon her side, leaving the sound in place, and make the same manipulation. When on her side the fundus tends to drop away from the sacral promontory, is an easy position for the patient, and permits replacement oftener than any other position. If this be not successful, I have her carefully get into the knee-chest position, and repeat the same manipulations as before. The side and knee-chest positions permit a longer sweep of the sound, and a much more complete replacement than the dorsal position. The utmost care and sensible tact must be used when employing the sound, else you may do much harm. If a good deal of pain be caused by your endeavors, you should desist, for there are probably adhesions, which, if torn, may cause serious damage.

Many a woman has come to me with the story "that the womb was tipped backward, and that Dr. So and So said it was grown fast to her rectum," which by these methods I have replaced, proving thereby that the fundus had caught under the sacral promontory, and had not been adherent.

The organ having been properly replaced, what should you do with it? If the misplacement is not extreme, is recent, and seems inclined to stay in place, don't do anything, except to instruct the patient to assume the knee-chest position several times a day, and to lie, when in bed, on her sides or face, and to return after a few days, that you may make another examination.

Most essential, in the treatment, is to keep the womb in place, and give nature a chance to relieve the engorged circulation, and to contract the stretched supports, which does away with the dragging and reflexes, and permits satisfactory results from properly selected remedies, that before have brought only disappointment.

If the replacement has been of long standing, or you think it not likely to remain where you have placed it, support it at once.

For those women who have badly torn perineæ, I have tried various forms of stem pessaries. They are not satisfactory and are very uncomfortable to the wearer. The large air-inflated, soft rubber ring pessaries give the most relief, but are dirty, and do not last; they soon lose their air and collapse. For those who are not married, the glass ball is more satisfactory, because more cleanly and enduring. Such patients should submit to the knife. However, they usually will not, and you have to do the best you can, or permit them to suffer.

For those patients with good perineæ you can choose between tampons and pessaries.

From my experience tampons are quite unsatisfactory. They should be replaced daily in order to get good results. This is inconvenient, and too expensive for most patients, and an annoyance to the physician. Your patient will neglect to come to you every day, and as a result the tampons get out of place, and permit the womb to misplace again, and you have to repeat your manipulations to replace it. This repeated misplacement keeps the various ligaments stretched, and the parts engorged with blood, nor is it beneficial to have to repeatedly handle the parts as roughly as is often necessary.

Tampons cannot be worn during menstruation, and some of these patients flow almost continually.

However, when there are adhesions or exudates that permit of but a partial replacement, which you hope to be able to cause to be absorbed, use common cotton tampons, or tampons of elastic surgeon's wool, covered with a thin sheet of ab-



Fig. 5.—Normal position of pelvic organs. Normal curve of spine. Heavy broken line showing weight of abdominal organs on or in front of the pubes.

sorbent cotton. Run a slip-knot of thread about them to facilitate removal. Soak them in glycerine, boroglycerine, five per cent. ichthyol glycerine, or about one-half per cent. iodine glycerine. Tuck a comparatively small tampon up into the posterior cul-de-sac as high as possible. Then place one or more large tampons below and in front of the cervix, in order to crowd the cervix backward and the whole womb upward, while in that position. These larger and lower tampons should quite

bridge across the vulva. If there be a good deal of tenderness and inflammation, the patient should, for a time, be kept in bed and the tampons be as small as possible consistent with holding the womb in place. By the use of these, adhesions



Fig. 6.—**FAULTY POSITION OF PESSARY:** upper end pressing *against* the cervix; (and shown above at the upper right of the engraving) **PROPER POSITION OF PESSARY:** showing pulley action of vaginal vault over top of pessary, suspending uterus at top of cervix.

and exudates often absorb and permit of a more perfect replacement, or of the replacement of a prolapsed ovary, so that a hard pessary may be worn.

As soon as possible I introduce a hard pessary, an Albert Smith, or modification. This should be wide enough at the point, or outer end, so that it does not impinge on the urethra, and so that it bridges the firm muscular bands of the vulvar

sphincter, where they converge to the symphysis pubis, else it will wedge its way out when the woman stands. Throughout the rest of its length it should be just wide enough to gently fill the vagina laterally, but not to stretch the vagina. It should be long enough to reach up into the posterior cul-de-sac and hold the vault taut. The taut vault, like a strap on a pulley, holds the cervix up where it belongs, and the heavier fundus drops downward against the bladder.

When properly fitted, the patient does not realize that there is any foreign substance inside of her, and experiences only relief. She can wear it for months, if necessary, without harm. It does not interfere with careful sexual intercourse. With it in place she can take cleansing and medicated douches, if necessary.

With the uterus in place, the desideratum is to restore the pelvic circulation, and to restore the supporting ligaments to their normal length and tone, that they may unaided carry their burden. With this in view, I give her instructions which I consider of the utmost importance. I tell her to discard her corsets, or if she will not, to wear them very loose. When standing and walking a loose corset does no harm, in fact may be a help as a skirt supporter, but when she sits and bends forward, even a loose corset breaks in at the waist, and crowds all of the abdomen below the waist downward—just what we desire to avoid. I tell her to hang her skirts to supports from the shoulders—for even though the waistbands are loose when at the waist, they drop downward until they reach a larger part of the abdomen, upon which they hang, and consequently crowd the lower abdomen's contents downward. I tell her to stand so that she preserves the proper curve in the lumbar region; that to learn that position, she should stand with her toes, chest, chin against a door or wall, with shoulders well back. This throws the weight of the body onto the balls of the feet, and is something of the pose of the Eastern college girl. This gives the greatest amount of space possible to the abdominal cavity, and throws the weight of the abdominal viscera against the front abdominal wall, and in front of the pubes. I instruct her to then place her fingers on her shoulders, or on top of her head, or to slowly raise her arms

laterally to above her head, and at the same time to inhale deeply, raising the ribs as much as possible, to then hold the ribs so, and to begin exhaling by sharply and forcibly drawing in the abdominal muscles and thereby forcing the diaphragm upwards; then to complete the exhalation by letting the ribs fall. This method of breathing causes the diaphragm to act like a great suction pump, lifting all of the abdominal organs upward, and sucking the portal vein's blood upward to the lungs. As the portal vein has no valves, its congestion is most noticeable in its terminals, which are in the pelvis. This suction relieves the pelvic congestion, and thus lessens the pelvic viscera's weight and discomfort. I instruct her in free calisthenic exercises, tending to strengthen the trunk and abdominal muscles; to stand firmly on both feet (with the hands resting on the hips, or shoulders, or held free above the head) to sway sidewise at the hips, and forward or back, and in a circle, the hips to remain stationary. These to be increased in number and extent very gradually, not more than twice of each motion at first. These motions massage the bowels, and result in better liver and bowel circulation, and better peristalsis, and increase the tone and strength, not only of the abdominal and trunk muscles, but also of the fibrous tissue of the suspending ligaments of the womb. I direct her to exercise more and to sit less, to walk out of doors, and to do general housework, than which there is no better exercise for a woman, but to be moderate and progressive in all of it. I direct her to avoid rocking chairs, because the position of the body, when in one, is such that the direction of abdominal weight is directly into the pelvis; to sit erect in a straight chair and, when tired of that position, to lie down; and to lie down several times a day, if for but five minutes at a time.

By such means many of these patients may be cured. Those who are not may have to submit to operations for the repair of a lacerated perineum or cervix, or to amputation of the cervix, or to the shortening of the round ligaments, or to ventral suspension.

Personally, I have traced the history of some of my cases of misplacement back to childhood, that were accompanied by very little disturbance or discomfort until some exposure, or sickness, or prolonged nervous strain had resulted in local engorgement, and all sorts of local and reflex symptoms. I have also examined numerous women with torn perinei, lacerated cervices, heavy and catarrhal wombs, that were not misplaced. These were invariably muscular women, or those who stood and dressed correctly. Consequently the reason I have put so much stress upon proper position in standing and sitting and exercises.

CRANIOTOMY: REPORT OF TWO CASES.

BY A. B. LICHTENWALNER, A. M., M. D.

When we consider that the fetus causes dystocia in either of the following ways, namely, abnormally large fetus, multiple pregnancy, monstrosities, malposition or malpresentation, our lines of treatment are very materially simplified, with a large unyielding head, attempting to pass through what is usually considered a normal pelvis. It produces such disproportion between head and pelvis that the latter must be considered contracted, so far as that particular head is concerned. If the head is unusually large or refuses to mold itself, we may be confronted with a condition which would warrant us in seriously considering a major operation, in order to effect delivery. The safety of the mother is the first and essential consideration in the practice of obstetrics, and in order to insure this it becomes necessary to sacrifice the child. Craniotomy, therefore, as compared with the employment of the ordinary forceps, is less favorable, maybe owing to the feeling of unwillingness to take the life of the child, even in so justifiable a cause, hesitating to perforate until assured of its death, and the delay thus occasioned has rendered the operation much more unfavorable to the mother than if it had been undertaken earlier. I would here quote a case by a certain writer where the head of the child was in situ at the vulva for twenty-three hours before forceps-delivery was undertaken; there followed the most extensive gangrene and sloughing of vulva and perineum it is possible to imagine. Besides, it must be recollected that the death of the child is certain in cases where craniotomy is admissible; it cannot be saved by any means, unless we accept the Cæsarean operation, which we also learn has its fatality. On the morning of January 8, 1897, I was called to attend Mrs. W. Position normal, left occipito-anterior, a perfectly normal first and second stage labor. Noticed nothing unusual other than an over-sized fetus. After the slipping of the forceps and after many hours of fruitless labor, I called on my fiend Dr. Gilbert, who, with renewed strength—I well remember, methinks I can see him as he pulled and pulled and pulled, neither of us

possessing such instruments as a perforator and cranioclast. We called, on that early morning hour, Dr. Charles Brooks, who, upon examination, asked pardon, but also wished the privilege of first using the ordinary forceps; however, with the same fruitless result. Therefore craniotomy was performed. The mother, making a happy and most speedy recovery, was allowed to leave her bed after the twelfth or thirteenth day. Almost immediately upon the conclusion of this case I made it my business to actually have in my possession instruments similar to those used by Dr. Brooks. For almost four long years these instruments were stored away in an instrument case until the morning of August 15, 1900. I was called to attend Mrs. A. Noticed nothing unusual between the first and this, my second case, other than the slipping of the forceps, remembering that I read somewhere that "slipping forceps are either misapplied forceps or else the instrument is contra-indicated by position or presentation." Thereupon called for assistance, my neighbor, Dr. Livezey, and he pulled and I pulled; we pulled together. Now, then, in due appreciation of the fact that craniotomy should not be undertaken heedlessly, nor without due consideration, the practitioner should be positive that it is imperatively necessary, especially if the child be living. Information should be given to the family of its dangers (that) though the uterine contractions have been powerful and long-continued, without any advance of the head, it will be justifiable to terminate labor by the forceps, if possible, or, if not, then by the perforator and cranioclast. I will not here burden you with a detailed statement of the operation after the bladder has been emptied and the vulva and vagina disinfected. The perforator is held in the right hand, is passed along the guide fingers to a suture, or as near to the fontanelle as possible, followed by the cranioclast. Suffice it to say the mother in this case also made a speedy recovery and was allowed to sit up at the end of two weeks. Hardly had this case subsided when I felt the need of having in my own possession an axis-traction forceps, and while I had no opportunity up to this time for its use, it is claimed to be the ideal forceps of our day that will answer all purposes. Quoting Sajous' Annual Cyclopedia of Practical Medicine:

"In the ordinary forceps the mechanism, as compared to

that of the pelvis, does not come into operation, while in the axis-traction forceps the head, together with the body of the instrument, obtains great freedom in mobility. A further great advantage in its use applies forcibly to the child; with the ordinary forceps the more powerful the extraction force applied the greater the compression force exercised upon the fetal skull, no matter how carefully done, no matter what amount of resistance force or material is placed between the handles at any point to lessen the compression power. Too much space between the handles insures a loose or unsteady application of the blades and consequently far greater predisposition to slipping. This is entirely overcome in the axis-traction instrument, through which no pressure is brought to bear directly on the head, since all extraction force is applied directly to and from the cross-rods.

“ Finally, it is remarkable with what ease apparently difficult cases are delivered by their use with a minimum force expended. The handles of the forceps are an extremely useful guide as to the position of the head and consequently an ever-guarding factor, a compass as it were as to the direction in which the force of the extraction is to be applied. The indications for the use of the axis-traction instruments are in no wise different from those of the ordinary forceps. Nor does their application differ from that of the latter. It is only after they are locked and ready for use that the mechanism begins to differ. In their use the following rules must always be adhered to: The handles of the blades must be a guide as to the direction of traction, no matter what their position. The position of the blade in its relation to the pelvis must never be taken into consideration and certainly must never influence us as to the direction of our traction energy. The button on the traction handle or the point of junction of the traction rods with traction cross-handles must always be nearly in contact, just barely touching, and this relation must be maintained until the patient is practically delivered. To allow the two parts to come into contact will at once influence the utility of the handle-tips as indices, for the tendency would then be to push the handles too rapidly forward and so give us a false conception of the true and ideal axis-traction. Its effect would thus be spoiled and

our energy rendered futile. Traction is then to be made and continued, the traction handles carried farther and farther forward and upward until the head begins to crown. It is now advisable either to remove the forceps, or, if the head is to be delivered solely by the forceps, the operator stands to one side of the patient and grasps both traction-rods and forceps-handles in one hand, while with the other he manages the perineum.

"Certain objections to the use of the traction-forceps must, however, not be overlooked. Their cost is far greater; but when we consider the amount of energy saved and the diminished risk to both mother and child, this is compensated for. Their length is an objection in one direction only—the difficulty in finding a vessel large enough for sterilization. Their liability to slip in the hands of the inexperienced is far greater than that of the ordinary forceps, and when this accident occurs the damage done to the material structure is far greater and deeper than the slipping of the ordinary instrument. Yet, in the hands of an expert, a slipping instrument is not very uncommon, and should at once suggest that a persistent use of this or any other instrument is fraught with considerable danger in a given case—other measures should be instituted in order to deliver."

With this foregoing knowledge, I concluded to substantiate my belief in the use of the axis-traction forceps. Subsequently on March 12, of this year, I was called to Mrs. B.; found ample reasons for the use of instruments, labor being slow and tedious, just the same as in the preceding cases I have cited, an over-sized fetus, with strong and hard labor pains. Giving the patient, in my judgment, a conservative measure of time and strength remaining, I applied the ordinary forceps, having exhausted my strength, occasionally unlocking the instruments, allowing full rotation. I called in an assistant, who apparently came fresh and strong, but meeting with the same result. Informing the family of the undoubted death of the little patient, I immediately sent home for my newly equipped re-enforcements in the shape of the axis-traction forceps. I applied them in the manner already indicated. I was more than gratified to learn that in the change of the fulcrum, with but ordinary leverage I was able to extricate my little patient in a very few moments, learning a lesson hereby—not as a certain physician who cited a case of craniotomy, thinking he had fully destroyed the pons varolii, but was horrified to find his little patient still breathing. But on the contrary here in the use of the axis-traction forceps you prevent craniotomy through allowing that it has its place, so that instead of bringing to light a mutilated form, you can nevertheless present to its mother an un mutilated baby.

CYSTITIS.*

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The pathology, symptoms, and treatment of cystitis in women is similar to that of men. It will, however, be interesting to note certain differences in ætiology and diagnosis caused by the proximity of the bladder and ureters to the uterus, tubes, and ovaries, which are so often the seat of inflammation. It should also be noted that, more frequent than in men, symptoms which simulate cystitis are referable to diseased conditions of other organs.

Acute cystitis in women is, perhaps, less frequent than in men, and were it not for the numerous cases of infection either from gonorrhea, or following the use of the catheter after confinements and surgical operations, it might be said that the disease is comparatively rare in women. The absence of the prostate and the infrequency of urethral stricture in women will, no doubt, explain this difference.

I am aware that this statement may be disputed, some authors claiming that cystitis is quite as frequent in women as in men. That it is by no means a rare affection in women I also admit; nevertheless, I wish to repeat that aside from the cases of infection carried into the bladder by the careless use of the catheter, there are, as compared with the male bladder, few cases of actual inflammation of the mucous lining of the female bladder. True, there are, as stated in a previous paragraph, many cases of irritable bladder reflex from lesions in adjacent organs. There are also many cases of pericystitis or inflammation of the vesical peritoneum with perhaps subsequent adhesions which may cause distressing symptoms simulating cystitis.

The liability to congestion and irritability is enhanced by the anatomical relation between the bladder and uterus. These organs not only lie in close apposition, but there is also an exceedingly free anastomosis of blood vessels and nerves. As will be seen by reference to the anatomy of these parts,

* Read before the Illinois Homeopathic Medical Society.

the main arteries supplying both bladder and uterus arise from the hypogastric trunk; their arterioles freely anastomose and the vesical and anterior uterine veins coalesce. Furthermore, the nerve distribution, both sensory and sympathetic, are closely related, and the lymphatics converge to the same sets of glands.

It is not surprising, therefore, that increased frequency of urination should occur at the menstrual time, during pregnancy, or as a result of subinvolution or displacement of the uterus, or that in cases of chronic cystitis exacerbations should occur from any of these causes.

Increased frequency of urination during the early months of pregnancy is so common as to be diagnostic, and is often noticeable before any increase in the size of the uterus is perceptible.

Irritability of the bladder is frequently due to ante flexion or retroversion of the uterus. In the former case the fundus of the uterus, and in the latter the cervix, presses against the trigone of the bladder, causing the desire to urinate.

Cystitis in women, when accompanied with inflammation of the uterus or peri-uterine tissues, is extremely difficult to cure, relief being possible only when the inflammatory condition of the uterus has been successfully treated.

Ætiology.—The causes of cystitis in women may be predisposing or exciting.

The predisposing causes are (a) certain constitutional dyscrasias, as rheumatism, tuberculosis; (b) exposure to cold and dampness; (c) improper nourishment; (d) unhealthy hygienic surroundings; (e) concentrated urine; (f) action of certain cathartic drugs, turpentine, etc.; (g) pressure of tumor or pregnant uterus.

Exciting causes are (a) traumatism of the bladder, as in labor; (b) infection from catheter, sounds, or other instruments; (c) gonorrheal infection; (d) infection from vaginal or uterine discharges; (e) infection directly through the bladder wall, as in peritonitis or cellulitis; (f) stone in bladder; (g) infection from kidneys; (h) tuberculosis of walls; (i) cancer of walls; (j) foreign substances in bladder introduced through urethra.

Pathology.—The pathological changes are interesting, and since the introduction of the cystoscope, have been carefully studied in the living subject. In the earlier stage the blood vessels of the trigone become injected, standing out prominently in the mucous membrane; later the mucous membrane becomes congested, bright crimson in color, and, owing to the general infiltration, the distinct outline of blood vessels disappears; still later the leucocytes and embryonic cells are given off, and finally, unless the inflammatory process is checked, abscesses and ulcers may form or gangrene may develop, with possibly fatal results. At first the disease is confined to the neck of the bladder and mouths of the ureters, but later the whole mucous lining of the bladder may be more or less affected, though the principal lesions are usually confined to the trigone.

In the earlier stages the mucous surface only is affected, but as the disease progresses the muscular coats and pericystic covering may become involved, or, as suggested in another paragraph, the inflammatory process may originate in the pericystic structures and develop toward the mucous membrane.

Bacteriological examination usually shows one of two forms of pyogenic bacteria, the bacterium coli commune, or the staphylococci, the latter being the form usually present in cases of cystitis following puerperal and post-partum infection. Strange as it may seem, gonococci are seldom found in the bladder, even in cases of cystitis following gonorrheal infection.

Other forms of infection occasionally found are the urobacillus liquefaciens, the bacillus griseus, the micrococcus albicans amplius, and the diplococcus favus.

Catarrhal or superficial cystitis: in these cases the superficial structures only are affected. The mucous membrane is somewhat swollen, and there is some redness and exfoliation of epithelial cells. The urine is generally acid and contains more or less pus. Superficial or catarrhal cystitis, if not arrested, may become more deep-seated, resulting in suppurative cystitis. In this variety, or perhaps, more properly speaking, stage of the disease the deeper structures of the bladder wall are

involved. The urine becomes markedly alkaline in some cases, in others it may be acid; epithelial cells and pus become more abundant, and the cystoscope shows a coating of grayish-white muco-pus; this form of the disease is apt to invade the ureters and pass on to the kidneys.

Ulcerative cystitis, as the term implies, is a variety characterized by one or more ulcerative spots on the bladder mucosa. The ulcer may be the initial lesion as a result of blood infection, or it may be the result of infection and abscess of the deeper structures following a catarrhal cystitis. An ulcer at the neck of the bladder may be caused by traumatism followed by infection. Such an ulcer may develop into a chronic fissure and cause what is sometimes called fissure cystitis (Dudley). The condition is analogous to the marginal ulcer or fissure of the anus.

In this variety there is apt to be an intermittent hematuria, and in some cases phosphatic crusts form over the ulcer and are thrown off and pass away in the urine, causing much pain when passing the urethra, or remain in the bladder and serve as a nucleus for stone.

Diphtheritic cystitis, variously designated as croupous, fibrinous, or exudative cystitis, is a condition most often found in puerperal women. The lesion is an exceedingly serious one, as the necrotic changes are apt to extend into the muscular tissue and affect the blood vessels and lymphatics. Shreds of fibrin and sometimes considerable patches of membrane pass away in the urine, which is usually acid. The cystoscope reveals a characteristic yellowish-white membrane.

Exfoliative cystitis is like the above, except that all the symptoms are aggravated. It is the most serious form of cystitis known, often resulting in death. The mucosa, and also, in some instances, the muscular coat sloughs away in large patches, sometimes necessitating surgical interference to remove the detached membrane.

Traumatic cystitis may be caused by infection following traumatism of the bladder mucosa. The injury may be from a foreign body, either within or without the bladder. Foreign bodies within the bladder may be calculi, or substances introduced into the bladder by a physician or by the patient her-

self. If the foreign substance is smooth and not too large, it may remain in the bladder for some time without setting up cystitis; a smooth calculus may attain considerable size without causing distress, while a small calculus, if it has roughened edges, may set up severe inflammatory symptoms.

Foreign bodies introduced from without may be by accident as from breaking of a catheter or probe, or losing of cotton attached to a probe introduced for medicating the urethra, or they may have been introduced by the patient herself, either to relieve an irritation vaguely referred to the bladder or in some cases women have been known to lose substances in the bladder while attempting to produce abortion on themselves, mistaking the urethra for the mouth of the womb.

The shortness of the female urethra makes the introduction of foreign substances into the bladder much easier in the female than in the male.

Nor do such accidents always occur in foolish or insane patients. An interesting case was referred to me by Dr. R. C. Newell of this city; the patient, a young lady above the average in intelligence, was partially awakened at night by an uneasy, itching feeling at the urethra; reaching to her head she secured a hairpin of the ordinary wire variety, with which she endeavored to reach the irritating point; in doing so the hairpin slipped from her fingers and was lost in the bladder.

The patient was sent to the Temperance Hospital, the urethra was dilated sufficiently to introduce the finger. With the finger as a guide a forceps was introduced, and the hairpin was secured and removed.

Traumatic cystitis may be due to injury from without, as kicks, falling upon sharp-pointed substances, instrumentation either of the bladder or vagina, pressure of the fetal head or of obstetric forceps, or even the long-continued presence of an ill-fitting vaginal pessary.

Symptoms.—The symptoms are the same as those given under cystitis in the male, plus the symptoms of uterine and ovarian congestion which are apt to be present.

There is frequent desire to urinate with extreme tenesmus; a burning, smarting sensation during micturition followed by a dull, heavy pain after the bladder is emptied. The pain in-

creases as the urine again collects, and is aggravated by pressure or motion. Pus is usually found in the urine and there may also be blood present, especially toward the close of micturition. The most distressing cases are those of gonorrheal origin, where both the mucous lining is invaded by way of the urethra and the peritoneal covering is infected by way of the uterus and tubes. In such cases the patient suffers a perfect agony of pain which will tax the ability of the physician to overcome.

There may be little or no fever so long as the mucous membrane only is affected; when, however, the deeper structures become involved, there may be considerable rise in temperature.

Diagnosis.—The four classical symptoms,—frequent desire to urinate, pain and tenesmus, pus in urine, and extreme tenderness on pressure over the bladder or per vaginam,—if all present, will invariably determine the true condition.

If the inflammation is limited to the neck and trigone of the bladder, the pus will be found principally in the urine expelled at the beginning and ending of micturition, and the tenderness is elicited by pressure on the base of the bladder through the vagina, while pressure above the pubes is comparatively painless. If, however, the whole surface of the bladder is inflamed, the pus will be about evenly distributed through the whole quantity of urine passed, and tenderness is elicited by pressure both above and below.

Pus in the urine, without other symptoms, is not diagnostic of cystitis, as the pus may come from the ureters, vagina, or kidneys. It is essential then in case of doubt that the patient should take a vaginal douche before urination, if the urine is for examination.

If it is suspected that the pus may come from the kidneys, the ureters should be catheterized, or the bladder should be thoroughly washed out, after which the urine is drawn off with a catheter as fast as secreted. If pus is still found in the urine, it must come from the kidneys or ureters.

A history of gonorrhea or tuberculosis will assist in making a diagnosis.

If the deeper structures become involved, resulting in abscess or pericystitis, the fact will become evident from the rise

in temperature, evidences of deep-seated inflammation and more or less tumefaction remaining after the urine is drawn off.

Cystitis due to calculus will be evidenced by sudden interruption of the stream, greater tendency to hemorrhage from bladder, and in some cases a history of gravel or sand in urine, or possibly the history of a previous attack of renal colic without the passage of the calculi from the bladder.

The sound or cystoscope should always be used to confirm the diagnosis, if calculus is suspected.

Tubercular cystitis should be suspected if there is pain, frequency of urination, and hematuria in a patient suffering from tubercular disease of other organs. The symptoms come on gradually and during the early stage tubercle bacilli can be found in the urine, but not after pus formation becomes profuse.

A history of any foreign body having been introduced into the bladder, or of catheterization followed by classic symptoms above given, makes diagnosis of cystitis certain.

Treatment of Acute Cystitis.—The treatment of acute cystitis in the female, as in the male, should be largely prophylactic and by internal medication.

Prophylactic treatment consists principally in keeping the patient's general health up to normal and in avoiding infection. The two most frequent sources of infection are gonorrhea and the careless use of catheters. The first is due to the indiscretion of the patient herself or the criminality of her legal spouse; the second to the criminal carelessness of the physician or nurse. I put this emphatically because I believe that the insertion of a catheter which has not been thoroughly sterilized, or where the meatus and surrounding parts of the patient have not been properly cleansed, is nothing less than a crime. I have frequently been exasperated by seeing nurses or assistants insert a catheter, which itself may have been perfectly sterile, between labia smeared with filth, or perhaps, in their hurried endeavor to introduce it into the urethra, slip the end into the vagina from which was oozing a vile leucorrhea, and then withdraw it and insert it into the urethra.

Judging from the number of cases which suffer from cystitis

after surgical operations and after confinements, we can readily believe that such carelessness is too common.

The physician should never leave the passing of the catheter to an incompetent or untrustworthy assistant or nurse. It is often best to instruct the nurse, in the presence of the patient, as to the manner of preparation necessary. This has a two-fold influence: it prepares the patient to submit to what she might otherwise consider an unnecessary bother and exposure, and it also puts the nurse on her mettle, as she knows that the patient is cognizant of what is expected of her.

The indicated homeopathic remedies act with wonderful vigor in these cases, when carefully selected. The cause of the inflammation, as far as possible, should be removed and proper hygienic and dietetic treatment should be instituted. The urine should be kept bland by drinking large quantities of fresh water, and the patient should be kept as quiet as possible. If complicated with other pelvic inflammation, rest in bed should be insisted upon.

Injections into the bladder are seldom, if ever, indicated in acute cystitis, and the use of catheters or sounds should not be advised, except in cases of retention which does not respond promptly to the indicated remedy.

Hot packs over the hypogastrium and hot vaginal douches, or hot sitz baths, often give relief, and inasmuch as they do not interfere with scientific medication should be recommended.

Thorough dilatation of the urethra will sometimes relieve the severe tenesmus. Vesico-vaginal section is seldom indicated, and should never be performed until all other methods of treatment have failed to give relief.

Chronic cystitis may be the result of an acute attack or it may come insidiously, especially when due to tubercle or gouty diathesis. Most cases of chronic cystitis are of the catarrhal or superficial variety, although any of the varieties mentioned under acute cystitis may become chronic.

As to "gouty diathesis" I quite agree with Sir Henry Thompson who, in speaking of cystitis in men, says, "Possibly you may be forced to attribute it to a gouty diathesis. A very refuge in time of trouble for practitioners of feeble diag-

nostic power is 'gout, particularly 'suppressed gout'—therefore beware of it. And while I think it must be admitted that inflammations, both of the urethra and of the bladder, may be sometimes mere local developments of the ubiquitous influence, so named, I am sure that this cause is of exceedingly rare occurrence."

Pathology.—Most cases of chronic cystitis are of the catarrhal or superficial variety, although any of the varieties mentioned under acute cystitis may become chronic. The morbid changes which take place in the bladder wall are sometimes very pronounced; the mucous membrane may become dark gray, ecchymosed, greenish, or even of a blackish color. This is covered with a layer of muco-pus, which is quite firmly adherent. The mucous membrane is swollen, soft, and friable, and the muscular coats are often greatly thickened; ulcers may form, which are apt to extend into the deeper layers and cause abscesses.

The pathological changes are usually most pronounced in the region of the trigone, although the whole surface of the bladder may be more or less affected.

Symptoms.—The symptoms of chronic cystitis are similar to those of an acute attack, except that they are not so severe. The four classified symptoms—frequency of micturition, painful micturition, pyuria either with or without blood, and tenderness on pressure—are usually all present. Owing to the fact that the fundus is the part of the bladder most often involved, the pus is most abundant in the first and last of the urine passed. This pus is usually of a yellowish or greenish color and is sticky, stringy, and slimy, adhering to the bottom of the chamber. The urine is usually alkaline, sometimes ammoniacal, and has a characteristic offensive odor, especially when there is sloughing of the mucous membrane or deeper structures of the bladder.

During the earlier stages of chronic cystitis the patient's general health remains good, even though the conditions of the urine and the local symptoms indicate a marked lesion of the bladder. Gradually, however, the effects of the disease become apparent, in the general health of the patient; she becomes pale or sallow, loses flesh and is weak: her appetite fails

and digestion becomes impaired. The disease often extends to the kidneys, setting up a pyelo-nephritis which is usually the cause of death in those cases which prove fatal.

Diagnosis.—If all the classical symptoms are present,— viz., frequent desire to urinate, pain on urination, pus in the urine, and tenderness of the bladder on percussion, especially through the vagina,—the physician can hardly fail in making a correct diagnosis. Nevertheless, mistakes are often made in diagnosis by not keeping in mind these symptoms. The conditions most often mistaken for cystitis are a diseased state of the kidneys and an irritable condition of the bladder, which may be reflex from the meatus urinarius, hymen, vagina, uterus, ovaries, or rectum. With inflammation of the pelvic peritoneum the bladder is always more or less irritable, and may be involved in actual inflammation.

In tuberculosis of the bladder there is usually some inflammation, and the symptoms are so like cystitis from other causes that the microscope alone can indicate the difference.

In reflex irritation there is no pus in the urine and little, if any, tenderness on percussion. In these cases, however, there is often a cloudiness of the urine due to earthy phosphates which is sometimes mistaken for pus.

In pyelo-nephritis the pus is distributed evenly through the urine, and if the bladder is thoroughly cleansed, the first urine collected thereafter will contain the same amount of pus as that previously voided. This, as will be seen by reference to a previous paragraph, is not the case in cystitis.

The urine in pyelo-nephritis is usually acid, while that of cystitis is more often strongly alkaline. Furthermore, the general health of the patient becomes impaired earlier in pyelo-nephritis.

Occasionally a case of mild cystitis is found in which the symptoms are greatly aggravated by reflex conditions; in other words, we find an actual lesion of the bladder plus a lesion of a neighboring organ.

Treatment.—In speaking of acute cystitis we stated that the treatment was largely prophylactic and medicinal. In chronic cystitis the treatment is medicinal, local, and, in rare cases, surgical.

The indicated remedy, carefully selected, is often quite as satisfactory in the treatment of chronic cystitis as in the acute form. Here again, all sources of irritation, whether direct or remote, must be removed before the full benefit of the remedy will be obtained. To illustrate: About a year ago I was called to attend Mrs. S., who was suffering from a chronic cystitis which had dated from the birth of her last child, then two years old, and which I suspected originated from an infected catheter. I tried for some time to relieve the distressing symptoms with remedies but failed, and therefore recommended the repair of the cervix, which was badly lacerated; this being done the patient received but little, if any, benefit. The indicated remedy (*mercurius corrosivus*) was then given with the happiest results, the symptoms all leaving in a few days, and the patient has since remained in the best of health.

Of late years the only local treatment I use is irrigation of the bladder with a boro-calendula solution. If this is done two or three times per week, or even daily in some cases, the recovery may often be hastened perceptibly. The irrigation of the bladder should be done carefully by an experienced person; every antiseptic precaution should be taken, and the bladder should not be over-distended with the fluid. An inflamed bladder cannot, as a rule, contain more than two to four ounces of liquid without causing the patient great distress. This amount should be injected slowly through a medium-sized soft rubber catheter and should be of the temperature of the body.

Various solutions, such as acetate of lead, 1 grain to 4 or 6 ounces of water; dilute nitric acid, 2 drops to the ounce; nitrate of silver, 1-2 to 1 grain in 4 ounces of water; creolin, one-half per cent. solution, and even instillations of 20 or 30 drops of a two per cent. solution of nitrate of silver, are recommended by the old school, but I have doubt if with any better results than with the simple, safe, and efficacious solution of boracic acid and calendula recommended above.

Sir Henry Thompson recommended the use of biborate of soda and glycerin, prepared and used as follows: "Two ounces of glycerin will hold in solution 1 ounce of biborate of soda; to this add 2 ounces of water; let this be the solution, of which you add 2 or 3 teaspoonfuls to 4 ounces of warm water."

Not much relief from pain can be obtained by injecting anodynes into the bladder, as the mucous membrane of the bladder has little, if any, absorbing power. If thought necessary to administer an opiate, it had best be given in the form of a rectal or vaginal suppository of cocoanut butter containing from 1-4 to 1-2 grain of morphia. With our homeopathic remedies at hand, however, it is seldom, if ever, necessary to use an opiate.

Another point worth considering is that, in these cases of chronic cystitis, the urine is, as a rule, strongly alkaline, and the physician is tempted to recommend an acid to counteract the alkalinity. Such a procedure is a mistake, as no amount of acid taken into the stomach will affect the alkaline condition of the urine.

Surgically little can be done, other than to remove sources of irritation. Dilatation of the urethra will sometimes stop the tenesmus, and vesico-vaginal cystotomy may be necessary to effect proper drainage. The latter operation is performed much less often than formerly. Occasionally a case will be found where a calcareous crust forms at the neck of the bladder which causes great distress. In such cases dilatation of the urethra, with curettement of the trigone with a semi-blunt curette, will bring immediate relief; as in a case seen with Dr. M. M. Thompson of this city.

Calculi of considerable size may be removed without crushing through the dilated urethra; large stones may necessitate crushing or removal through a vesico-vaginal opening.

Pelvic abscesses sometimes rupture into the bladder, setting up a severe cystitis. In such cases laparotomy and removal of the pus sac are usually indicated.

Fecal fistula, due to inflammatory adhesions of the small intestine to the wall of the bladder, is occasionally met with, as in a case operated from Dr. Prouty. In this case the abdomen was opened, the intestine separated from the bladder, and the opening into both bladder and intestine closed with a double row of sutures.

If, after the cystitis has been cured, the bladder remains contracted, this can be overcome by requesting the patient to retain the urine for increasingly longer periods, or by

gradual expansion of the bladder by increasing quantities of normal salt solution.

Medical Treatment.—The remedy which in my hands has proven most often indicated and most generally useful, in acute as well as in chronic cystitis, is ferrum phos. There is "irresistible urging to urinate in the daytime, aggravated by standing and accompanied with pain along the urethra and neck of the bladder."

Magnesium phos. will often relieve the pain and tenesmus better than opiates. In cases occurring in poorly nourished or overworked patients kali phos. is a valuable remedy.

Apis is sometimes indicated, especially in those cases of cystitis following Spanish-fly blisters.

Kali mur. is valuable in cases of interstitial exudation when there is a discharge of thick, white mucus. The urine is dark-colored and deposits uric acid. This remedy is said to be especially useful when the cystitis is accompanied with torpor of the liver.

Mercurius corrosivus is often useful in cases following gonorrhea.

Cantharis is indicated when there is extreme superficial sensitiveness over the hypogastrium (especially when the bladder is distended with urine) and almost unbearable tenesmus vesicæ. Sometimes the patient will have the desire to urinate every two or three minutes. The urine does not pass freely or copiously, but dribbles away in drops, with burning, cutting pains, almost setting the teeth on edge; the pains could not be worse if the urine were molten lead.

This burning and urging continues after urination, so that the poor sufferer is really in constant torture. Exacerbations come on every few minutes, as endeavors to urinate become too urgent to resist. The urine itself shows changes in its composition; blood is more or less thoroughly mixed with it, according to the part of the urinary tract from which the hemorrhage proceeds. The urine, however, is of a deep red color, independently of its containing blood, and deposits a sediment of mucus.

Cantharis you will find indicated in acute cystitis more frequently than all other remedies put together (Farrington).

Equisetum hyemale is very popular among the laity in some regions of the country where people make a tea of the stocks and drink it ad libitum; its action on the kidneys and bladder is similar to *cantharis*, only that the symptoms are less severe. According to Farrington "*cantharis* is not called for as often as *equisetum* when there is an excess of mucus in the urine; the bladder is tender and sore with severe, dull pain, which does not lessen after urination. There is constant desire to urinate, sometimes with a feeling of distention in the bladder and with profuse urination. During urination a burning pain is felt in the urethra."

Conium should be thought of in cystitis of elderly men with enlarged prostate, where the urine comes with intermittent flow.

Digitalis may be found useful in gonorrheal cystitis, where the neck of the bladder is involved. There is more or less strangury and urging to urinate, both when the patient is up and when lying down, especially at night. If combined with a severe balanitis and urethritis, the remedy is all the more indicated.

Dulcamara, according to Farrington, has a specific action on the lining membrane of the bladder causing catarrh of that organ; the urine being offensive and loaded with mucus. This remedy should be thought of in connection with *aconite*, when the cystitis follows upon a sudden cold.

Pulsatilla is chiefly useful in the cystitis of pregnant women, but may be indicated in women not pregnant, or even in male subjects.

Lachesis may be useful where the urine indicates putrefaction, and when the general symptoms seem to indicate the drug.

Aconite is often the best remedy during the first few hours of the attack, especially when the result of cold or injury. The general symptoms of *aconite* will be present.

Gelseminum is useful in those cases where there is incontinence from paralysis of the sphincter, especially in nervous children and younger people (for elderly people see *kali phos.*). This paralysis of the sphincter vesicæ is accompanied by a

more or less complete relaxation and prostration of the whole system.

Belladonna is indicated where, in addition to the characteristic cerebral and general symptoms, there is a tendency to retention. The urine passes a drop at a time, or there may be involuntary micturition. On standing it becomes turbid, and deposits a reddish sediment. There is a dull pressure in the vesical region, especially at night.

Terebinth is one of the few drugs which is capable of actually setting up a cystitis. It should, therefore, be found homeopathic to many cases, and when clearly indicated it has proven a valuable remedy. It is but indicated in those cases, not of gonorrheal origin, where the whole urinary tract is affected—kidneys, bladder, and urethra. The urine is scanty and bloody; there are violent, burning, drawing pains in the region of the kidneys; there are tenesmus and strangury, with inflamed condition of the urethra and extreme sensitiveness over the hypogastrium.

Lycopodium is a valuable remedy when the cystitis is caused by uric-acid crystals in urine; there is frequent desire to urinate; the urine deposits a red, sandy sediment, or the urine may be turbid or milky with an offensive, purulent sediment. In children there is so much irritation at neck of bladder and urethra that the child cries out with pain before each urination; there is much backache, which is relieved with passing urine. There are other general symptoms usually present, which early indicate the drug, and when so indicated it will seldom fail to relieve.

Hydrastis should be thought of when the cystitis is a part of a general catarrhal condition of the mucous surfaces of the body. The urine smells decomposed, and there is a thick, ropy sediment on standing.

Sulphur is a grand remedy, when indicated, both for the acute and for the chronic form of cystitis. The indications, in addition to the general symptoms, are frequent and sudden desire to urinate, especially at night, with copious discharge, enuresis, especially at night. Burning sensation in urethra, worse while urinating; intermittent stream, urine turbid and offensive.

PELVIC PERITONITIS.

BY JAMES B. BROWN, M. D.

Inflammation of the pelvic peritoneum is of frequent occurrence, and there are very few women that pass through life that are not afflicted with some of the various forms, either general or local.

The uterus and its adnexa perform the highest functions of any organ in the body. It is abundantly supplied with both spinal and sympathetic nerves, completely enveloping the organs and performing their many duties.

As Martin very aptly expresses it, it may be likened to a telephone system. So long as the wires are in perfect order they work to perfection, but just as soon as an accident occurs or a crossing of wires, there is great confusion. Just so this pelvic brain acts. When from traumatic causes or infective agents gaining access to the pelvic organs immediately there is created a disturbance.

Inflammatory changes take place, and as the inflammation extends to the peritoneum the lymphatics furnish an exudate which shuts off the lymph channels and prevents absorption, whereby the inflammation becomes localized.

By a wise provision of nature the pelvic peritoneum is a benign area, *i. e.*, peritoneal absorption takes place more slowly in the pelvis than over the small intestines or diaphragmatic region.

When inflammation takes place, immediately there is confusion of the nerve centers that control this portion of the body.

The hypogastric plexus, the governor of these organs, runs riot, there are great disorder and vasomotor disturbances, producing a lack of harmony of all the functions of the body.

Is it any wonder, then, that the patient has all the diseases the flesh is heir to? This disturbed state of equilibrium will produce some of the most violent reflexes, namely: stomach and chest troubles, chronic headache, vertigo, various neuroses, and often insanity.

The gynecologist has a vast field before him. Being familiar

with the pathological changes that occur in these troubles and the reflexes they produce, he will direct his treatment accordingly, and by removing the pelvic trouble will see that hacking cough disappear, the appetite become normal, the brightening of the intellect, and headache a thing of the past.

These troubles may occur from other causes than pelvic trouble. A careful diagnosis will show which it may be. In examining these cases the patient must be placed in a horizontal position with thighs flexed. This gives the best position for the bi-manual examination.

In diagnosing these cases we must first, get the history of the case; second, all possible information by means of inspection; third, by palpation and manipulation; fourth, symptoms objective and subjective.

By inspection we can determine if the tissues are of the normal color, condition of os; if any lacerations or discharge. By palpation we determine the position of the uterus, its size and mobility, condition of cervix, ovaries, and tubes; if any growth, adhesions, displacements, thickening of the walls, or abscess. Combining these conditions together with the symptoms and history of the case gives us a working basis, whereby we can make a reliable prognosis.

Among the various causes of pelvic peritonitis the gonorrheal form is the most prevalent, especially so in the large cities. I think it safe to estimate that seventy-five per cent. of pelvic troubles are of gonorrheal origin.

The gonococci are very virulent and troublesome germs, and it is a question if those who are peculiarly susceptible to that specific virus ever entirely recover.

In treating pelvic troubles, both medical and surgical methods must be brought into play. Each case must be treated by its specific indications. The most successful gynecologists to-day are not those who rely entirely upon surgical or strictly medical measures, but who carefully and unhesitatingly use both methods.

Pelvic peritonitis caused from gonorrheal infection does not respond to treatment as readily, and is more prone to relapse than the various other forms.

When endo-cervicitis or endo-metritis is a causative factor,

these conditions must be treated by local tampon. Ichthyol, ten per cent. in glycerin, is good in these cases, and applications of iodine give good results.

Gonorrheal endo-metritis calls for currettement, and if this is done before the infection extends far into the tubes and is followed with after-treatment, consisting of intra-uterine douches and anti-gonorrheal medication, the disease will be checked without further trouble.

Gonorrheal salpingitis very often results in pyosalpinx. The pus exudes from the tubes into the peritoneal cavity, which causes a peritonitis and results in a mass of adhesions. When this occurs the tubes are ruined, and the patient will never be well until the pus-pocket is removed and the adhesions broken up.

When performing this operation always remove both tubes, otherwise the patient will be a candidate for a second operation. The symptoms of specific peritonitis differ somewhat from the various other forms; as a rule, the temperature does not run above 102, and very often it is subnormal. One case I recall to mind had a temperature of 101, pulse 90. A few days later the temperature dropped to 96.08 and pulse 48. I found afterwards that the patient normally had a slow pulse.

In the acute stages of these cases I give internally bell., gels., merc. cor., cann. sat., argent. nit., lachesis, apis, pulsat., etc., according to their indications.

In connection with the internal treatment I employ hot vaginal douches of boracic acid five per cent., or lysol, one-half of one per cent., every three hours.

If the bowels are sluggish use enema. An ice bag over the pubes will be of benefit. When inflammation is caused by abortion or labor, and the toxæmia is of a moderate degree, intra-uterine douching with internal modification usually suffices. Should the toxæmia proceed to a high degree, curette at once.

In performing this operation (curettement) we must exercise great care, for it is a dangerous operation. It should be done only under strict aseptic precautions, and by one who is familiar with it, or in the surgical habit; otherwise he may make matters worse.

In other forms of peritonitis with the symptoms of persistent vomiting, excruciating cutting pains, tympanitis, especially around the navel, with thighs flexed, moist skin, and pinched countenance, colocynth will relieve like magic.

Where there are great thirst, lips parched, tongue coated white or dark brown, offensive breath, headache, lancinating pains shooting through the abdomen and pelvis, patient irritable and don't want to be disturbed, bryonia will give prompt relief.

Should the pains linger and be of a sharp, stinging character, more prominent in the right iliac region, the disease is past exudative stage and adhesions are taking place, the urine is dark-brown and scanty, may be albuminous, patient has no thirst or appetite, feels stupid and exhausted, apis mel., if given when these symptoms occur, will clear up the condition and make a well woman.

I have seen cases where immense quantities of plastic lymph were thrown out through the bowels and vagina; the cul-de-sac was distended with effusion, leading one to think that an operation only would prevent adhesions from forming and making the patient ever after a sufferer. I have cured such cases by giving belladonna, bryonia, colocynthis, merc. cor., lachesis, apia, and sulfur, according to their special indications. I have examined patients a year after the attack, and found the pelvic organs in normal condition and the patient in the best of health.

This being a fact, I believe there are many cases operated upon whereas, if the right remedies were prescribed accurately, there would be a speedier and better cure, and save the patient and family lots of trouble and anxiety.

Especially do I believe this to be the fact in cases of streptococci, staphylococci, bacillus coli communis, or mixed infection.

Where there is a chronic specific trouble resulting in abscess with adhesions, we must resort to surgical measures. Too often such cases are curetted when the tubes demand removal.

Before closing I perhaps should dwell for a moment upon the use of the normal salt solution in this class of cases. It

has been found that in profound sepsis this solution, injected into the tissues beneath the breast, has been a most satisfactory adjuvant; and where a patient has sustained severe shock the injection may be made intravenously, with perhaps more prompt results.



PREGNANCY AND PARTURITION: SYMPTOMATOLOGY.*

BY J. S. MALCOLM, M. D.

1. *Calcarea Fluor.* Confinement; renders it easy. Flatulency during pregnancy. *b* *Mammæ*; hard knots in.

2. *Calcarea Phos.* *b* *Hydrocephalus*, during pregnancy, to prevent recurrence of, in future children. *b* Milk changeable, from alkaline to neutral, or to acid; watery and thin. *c* Milk has a salty taste; trying it, taste remains long on the mouth; child refuses breast. Pains: Complained as in first period of pregnancy, a drawing, aching in region of navel, extending to sacral region, worse in forenoon; heartburn up into throat, soreness in right groin, and a kicking, quivering over os pubis. Parts: Breasts; sore to touch, feel as if larger, as during last half of pregnancy. Pains and burning in *mammæ*. *b* Nipples; aching sore. Uterus; prolapsus in debilitated persons. *b* Weariness in all the limbs during pregnancy.

3. *Calcarea Sulf.* *a* *Mastitis*, when pus begins to form, or to prevent suppuration.

4. *Ferrum Phos.* *b* Cough, with ejection of urine, during pregnancy. *b* Headache during third month of pregnancy. *Mastitis*, first stage of. Morning sickness, with vomiting of food, with or without acid taste. *c* Nursing, after prolonged.

5. *Kali Mur.* *a* Abortion threatened. *b* *Albuminuria* dur-

* Dr. Malcolm died a few days following the mailing of this manuscript to the editor.

Symptoms with no mark are understood to have the least value.

Marked with *a* next.

Marked with *b* next.

Marked with *c* highest value.

ing gestation. Mastitis, weed, gathering breast, before formation of pus. Morning sickness, with vomiting of white phlegm. *b* Puerperal fever, first stage, chief remedy.

6. Kali Phos. Abortion threatened in nervous subjects. *a* Fever, puerperal, with absurd notions or mania. Labor pains: feeble and ineffectual; spurious. *a* Mastitis, pus brownish, dirty-looking, with heavy odor; adynamic condition; gangrenous, bad color, bad-smelling pus. Pregnancy, bloody discharge during; night pains during. Puerperal fever, second stage of. Sensation of weight in pelvis.

8. Magnesia Phos. Placenta retained. *a* Puerperal convulsions. *b* Spasmodic labor pains; cramps in legs.

9. Natrum Mur. Child refuses breast, has flabby scrotum, chills; constant fever, nursing sore mouth. *a* Convulsions, puerperal. *b* Dysuria during pregnancy; albuminuria; faint, gone feeling at pit of stomach; hunger, without appetite; fond of salt and salted food; congestion to chest, palpitation; hemorrhoids; cough; escape of urine. *b* Hair, losing of, in childhood or during period of lactation. *c* Labor progresses slowly, pains feeble, seemingly from sad feeling and forebodings. *b* Nausea and vomiting during pregnancy; morning sickness with vomiting of frothy, watery phlegm. *b* Frequent and severe attacks of vomiting, first of food, then mucus, and finally blood; worse in morning; during latter half of pregnancy. Vulvitis, herpetic.

10. Natrum Phos. *a* Morning sickness, with vomiting of sour masses or fluids.

11. Natrum Sulf. *b* Fever, violent for six weeks after confinement, followed by vulvitis with herpes; great prostration; restlessness and sleeplessness; loss of appetite; bad taste; great thirst; red tongue; constipation; headache and sensitiveness of eyes to light; vesicles, size of lentils, filled with purulent matter, hydrogenoid constitution. *b* Phlegmasia alba dolens; whole left leg greatly swollen, does not pit, but least pressure causes great pain; intolerable pain starting from left temple, goes across forehead to right vertex, to right side of occiput; begins in morning as soon as she puts foot to floor, lasts all day until 4 or 5 P. M., affected parts remain sore; affected leg

smarts like nettles; very nervous; cold chills come on suddenly; begins to shake as soon as she gets into bed, lasts greater part of night, followed by heat, no sweat; always chilly, "starved to death"; worse in wet weather; urine pale and scanty; pain in small of back; menses suppressed; leucorrhœa profuse, yellowish, purulent; radial pulse weak; unable to walk, but manages to get across room with help of stick. *b* Vomiting in pregnancy, with bitter taste. Vulvitis, herpetic.

12. Silica. *b* Abortion threatened; *a* hemorrhage after abortion. *b* Fetus, too violent motion of. *a* Hemorrhage after abortion, worse from least motion, mental or sexual excitement; painful hemorrhoids and obstinate constipation. Lochia suppressed, followed by boring pain in left temple, left supra-orbital nerve, and orbit of eye; worse by talking, or mental exertion before suppression, nursing produced a venous metrorrhagia. *b* Milk suppressed. *c* Aversion to mother's milk; child refuses to nurse, or if it does nurse, it vomits. *b* Moles; promotes expulsion of, shooting pains. *b* Nausea and vomiting of pregnancy; menses had been accompanied by palpitation. Pains: after pains felt in hips; soreness and lameness of feet from instep to sole during pregnancy. Parts: *c* Breasts or uterus; while nursing sharp pain in; pain in back, increase of lochia; pure blood flows every time child nurses; complains every time she puts child to breast. *c* Hard lumps in mammæ. *b* Great itching of swollen mammæ. Scirrhus. *b* Hard-edged fistulous ulcers, remaining after mammary abscesses. *b* Fistula of mamma discharging serum or milk. *b* Rhagades of mammæ or other parts covered with delicate skin, or parts affected with tettery eruptions. *a* Pain in nodular swelling of left breast, cutting pains in abdomen. *b* Inflamed breast, deep-red in center, rose-colored toward periphery, swollen hard and sensitive to touch; constant burning prevents her from resting at night; high fever, face sunken, but excited. Mastitis. *b* Nipples, drawn in like a funnel. *b* Inflammation of nipples. *b* Darting, burning in left nipple. *a* Scirrhus near right nipple, hard as gristle, uneven surface. *b* Nipple ulcerates; is very sore and tender.

REPERTORY.

Abortion, 5, 6, 12.	Lochia, 12.
Albuminuria, 5.	Milk, 2, 12.
Breasts, 1, 2, 3, 4, 5, 6, 12.	Moles, 12.
Child, 2, 9.	Morning sickness, 5, 10.
Confinement, 1.	Nausea, 9, 12.
Convulsions, 8, 9.	Nipples, 2, 12.
Dysuria, 9.	Nursing, 4.
Fetus, 12.	Pains, 1, 12.
Fever, 5, 6, 9.	Phlegmasia alba dolens, 11.
Fistula, 12.	Pregnancy, 6.
Flatulence, 1.	Scirrhus, 12.
Hair falling, 1.	Sensations, 6.
Hemorrhage, 12.	Vomiting, 9, 10, 11, 12.
Hydrocephalus, 2.	Vulvitis, 9, 10.
Labor, 6, 8, 9.	



COMBINED FETAL AND MATERNAL DROPSY.

BY H. VALDEMAR MUNSTER, M. D. (EDIN.)

An example of the above rare condition having occurred in my private practice, I have thought the case deserving of a place in medical records.

Mrs. G., aged thirty-one, was due to be confined on the 26th of November of this year. I was called to her on the 8th of October, on account of her size being remarkable and her feet very swollen. I found enormous anasarca of lower limbs and abdomen, and my first thought was that the case was one of hydramnios with secondary pressure symptoms, for the abdomen was really enormous (measurement was 40 inches in circumference); so much so that patient had great difficulty in getting about at all, although a strong woman otherwise. Questioned, she said that she had not observed fetal movements for some time. The urine was very scanty, loaded with urates, and contained a quantity of albumin. I advised rest in bed.

On the 9th of October I examined patient more carefully, and found both lumbar regions resonant. The fetal heart sounds were audible in the usual area, and numbered about 132 per minute. Diarrhea had occurred several times in the night.

My partner, Dr. Purdom, saw the patient with me on the 10th instant, and agreed with me in treatment, namely, in

advising to await developments. He also thought the case one of hydramnios.

I was sent for at 5.30 a. m. on the 12th of October, labor having set in. I found the os dilated, so burst the membranes at 6.30, when to my surprise only about half a pint of liquor amnii was discharged. I was still more puzzled to feel high up a boggy mass presenting, giving exactly the sensation of pressing an œdematous area. The bowels had moved at 2 a. m., and urine subsequently.

At 9.15 a. m. I put on forceps, and after great difficulty delivered the head of the child, which at first sight looked like an anencephalic fetus without any bridge to its nose. Subsequent examination, however, proved that the altered shape was entirely due to anasarca. Soon after this the uterine contractions came on with redoubled vigor, but no further progress towards delivery was made, although I applied vigorous traction. At 10.30 I concluded there was some enormous abdominal tumor in the fetus rendering delivery by natural efforts impossible. I therefore sent an urgent message to Dr. Purdom, fearing that even abdominal section might be needed to save the life of the mother.

Dr. Purdom arrived almost immediately, and we at once proceeded to put the patient deeply under chloroform. When patient was fully under, Dr. Purdom introduced his hand into the uterus and made vigorous traction, the internal hand being hooked between the child's legs and the external hand applied to the child's head and arms, the child being by this time dead. After about forty minutes' hard work, during which I aided Dr. Purdom by grasping the uterus externally, he succeeded in extracting the body of an enormously dropsical fetus.

The uterus was still quite as big as an ordinary full-term uterus, and the reason of this was found to be that the placenta was œdematous, and about as large as four or five ordinary placentæ put together. There was free, but not excessive, bleeding during the third stage, and the liquor amnii was quite of an ordinary quantity.

At 4 p. m. I returned to see how patient was, and found her doing well. I then proceeded to examine the body of the fetus. An incision into the boggy tissues of the scalp showed that the

skull was intact, but that the scalp was very œdematous over it. Indeed, the whole skin surface of the child's body was distended to the utmost with anasarca, and the face quite distorted. On opening the abdomen, which measured fifteen inches in circumference, a large quantity of ascitic fluid burst out, and the thorax was also full of dropsical fluid. I removed one kidney and found it lobulated, but, on section, it did not show any morbid appearance.

The mother made an uneventful recovery, the dropsy passing off in a few days and albumin disappearing from her urine. This was the sixth pregnancy, and patient had given birth to several healthy children, though the fourth and fifth pregnancies had been abnormal.

The case is instructive in showing what great difficulties may be overcome by persistent traction and counter-pressure over the uterus. A real advantage might be gained in such cases by carefully introducing an instrument with the object of puncturing the child's abdomen, when it was discovered to be enlarged by the operator's internal hand; but this would be a delicate and not very easy procedure. It would almost require a special trochar and canula for the purpose. In cases of fetal dropsy the child invariably dies soon after, if not before, delivery, so that saving the infant's life is not a question to be much thought of.

I regard the case as one of primary dropsy of the ovum and secondary of the mother, caused in her case by pressure of the enlarged uterus upon her kidneys and abdominal blood-vessels. I am quite at a loss to account for the fetal condition, and as the literature of the subject appears to be very scanty, I should be glad to have a little light from someone of wider experience and knowledge on the ætiology of such cases.

Current Comment.

W. J. Hawkes, M. D.:

What I shall say on the subject of *rupturing the membranes at childbirth* will, I presume, be regarded as heterodox in the extreme, because all others advise rupturing artificially if they are not broken naturally. I never (now) rupture the membranes at all until the head is born. The easiest and most natural labors that I have ever seen have been the few in which the membranes remained intact, and preceded the head of the child, protruding from the vulva in the shape and size of a small inflated bladder.

And with good reason: what more adaptable, elastic, smooth, and effective opening wedge can you imagine for the purpose of dilating safely the os and vulva? Were all infants born with a "caul," there would be no ruptures of the os and perineum. What better or more natural protection against ophthalmia of the newly born than the membrane which has been its protection during gestation?

Again, where every aid is needed to render labor as easy and rapid as possible, it is hardly wise to substitute the hairy scalp for the smooth, naturally lubricated amniotic membrane; but this is one evil of premature rupture.

I have observed frequently in mares this bladder-like forerunner of the offspring, and am convinced that, instead of being an anomaly, it is nature's way. I believe, also, that, were human labors natural, the membrane would remain intact until the head at least is born, and that it would then be a most effective preventive against the evils mentioned, and many others.

Never bandage a woman after labor. A tight bandage tends to produce the condition it is intended to prevent—an enlarged abdomen. Beyond the fact that it is unnatural, the bandage renders passive the abdominal muscles, which should have the stimulus of their own weight, in order that they may the more

naturally contract. As with all muscles, less than normal exercise weakens, and when the bandage is removed the muscles are weak and flabby, thus tending to pot-belliedness, so much dreaded by women.

Furthermore the bandage tends to produce prolapsus and retroversion by forcing the enlarged and heavy uterus backward into a perpendicular position. The normally pendulous abdomen is a necessity immediately after labor, and until the uterus has gradually assumed its normal size, in order that the enlarged organ may be accommodated and its relative position maintained. This is insured if the abdominal muscles are allowed in a natural way to gradually contract and resume their normal size and tone.

J. F. Winn, M. D.:

I desire to call attention to the *importance of vigilance during the colostrum period*. If a nipple is going to be tender it will, in a majority of instances, be noticed during the earliest days of lactation; and in looking for the cause, none is more potent than the prolonged and too frequent nursing practiced during the first three or four days after labor. The child, in some instances, is placed to the breast as often as every hour during this colostrum period, in the absence of instructions. Of course, this is all wrong. Indeed, close observation on this point convinces me that even the stereotyped interval of 2 1-2 hours is too short a time for the colostrum days. What the child needs at this period of life is rest, more than food. If it were hungry, nature would have provided the milk supply from the beginning. The colostrum, if only a few drops, will have the effect designed—that of driving out the meconium and preparing the digestive tract for the milk that is soon to follow. But when the child is made to tug away at the nipple (which is now being drawn for the first time) for 20 and even 30 minutes, with this process to be repeated every two hours, and sometimes oftener, what is to prevent the very extensive abrasion or deep fissure which appears? The wonder is that the woman has any nipple left at all.

How much better to let the child sleep, and, in turn, the mother, and place it to the breast only at such intervals as

shall be necessary to teach it to draw, and at the same time to get the amount of colostrum necessary for purgation! For several years I have been governed by the following scheme of hours for the colostrum period, and so efficacious has it proved to be I offer it in detail:

During the first day, unless a relaxed uterus demands the reflex effect of nursing, the child is not placed to the breast until three hours after its birth, and thereafter at intervals of five hours during the remainder of the first 24 hours; during the second day, the interval is four hours; during the third day, three hours. When lactation is well established, the nursing interval is reduced to 2 1-2 hours, and under no circumstances is the period shortened.

The writer would emphasize a point which he has never seen mentioned, and which in his experience is a most valuable adjunct in the prevention of sore nipples. It has for its object the lessening of the force necessary to draw the milk from the deeper portion of the tubules, especially during the first week of lactation, beginning with the colostrum period. Since adopting this plan in connection with the longer periods of rest just named, he has had absolutely no trouble with the breasts. It is this:

Just before the child is put to the breast, the nurse is directed to very gently massage or stroke the gland from the periphery toward the nipple; the object being to invite the flow of colostrum, and later, the milk up to and immediately under the region of the areola. When the areola is seen to be erected, the child is now put to the breast. The result is the efforts at traction are so slight that the nipple is scarcely pulled upon at all. Indeed, the flow of milk seems to be so easy that, apparently, all the child has to do is to swallow the milk which flows, as it were, by gravity.

♦ ♦

D. H. Craig, M. D.:

The treatment of *faulty uterine growth* must be both general and local. It seems to me safe to say that neither alone will ever in a single instance suffice.

The patients are usually of a sedentary and studious habit, therefore our first indication is to limit very rigidly the amount

of time spent in study or work, it usually being best to withdraw such a patient for one year at least from school or a sedentary occupation. Require an active out-of-door life. If their financial status will permit, horseback riding is a great aid, as it favors muscular growth in all directions and helps greatly in the correction of constipation. All forms of gymnastics, Swedish movements, etc., are indicated.

All growth depends absolutely upon a sufficient supply of the component elements of the organ in question, which are, of course, in the uterus and its appendages as in other organs derived from the blood. Therefore, to induce or increase growth it is first necessary to increase the supply of fresh oxygenated blood of the organ in which growth is to be induced. This implies not simply the production of congestion, because in many cases in which the desired growth fails an intense congestion often prevails long after all efforts at stimulating growth have ceased. It is absolutely essential to be certain that this congestion is active and not passive. In no case in which I had failed of an ultimate satisfactory result had I experienced the slightest difficulty in creating a very decided active congestion, but this invariably within a few weeks gradually took on the dusky, turgid characteristics of passive congestion, and growth stopped, the uterus relaxed and became flabby and receded to nearly its original condition.

Undoubtedly all have seen a growth begin only to a little later cease, and eventually recede, much to your own disgust and your patient's disappointment. This at least has many times been my own experience until recently, when I have been more fortunate.

The proper method of correcting this retrograde tendency was first suggested to me during the treatment of an entirely different condition. Probably all of you have noted that in performing operations in which hemorrhage, directly or indirectly, from the uterine artery is a factor nothing will more promptly control this arterial hemorrhage than traction on the uterus, downward if operating through the vagina, upward if through the abdomen. It was while operating to repair a lacerated cervix at the time that I was much exercised over one

of these cases of faulty growth, that the application of this principle suggested itself. If uterine growth depended absolutely upon a free and abundant supply of arterial blood, and if even very moderate downward traction shut off or curtailed this supply, and at the same time favored passive, or venous, congestion, it seemed to account for all, or nearly all, past failures. This sagging is, of course, the inevitable result of an increase of weight in the uterus, with a weak, also undergrown, set of ligaments to support it. There is a very marked tendency to retroversion at this period. It is, therefore, at this point that the importance of the round ligaments, in fact, all the ligaments, comes into play.

After the uterus has begun to grow—not merely to swell—it of course must sag, and the tendency to retroversion is greatly increased if an intra-uterine electrode is used, as the uterus is more or less retroverted during treatment. As all of our efforts to cause the uterus to grow have operated by inducing a considerable increased arterial circulation, and as the sagging shuts off this circulation, the inevitable result is to stop the growth.

This sagging and retroversion are to be accounted for in two ways, both of which are operative at the same time: (1) The stimulation used to induce growth acts directly upon the uterus and only indirectly upon the ligaments, thus rendering the early growth in the uterus much more rapid than in its supports; (2) muscular tissue is much quicker to take on growth, and being started progresses much more rapidly than the fibrous tissue of which the ligaments are composed. The indication, then, seems plain to properly support the uterus from the start.

Owing to the use of the small hot douches by the patient at home, packings cannot be used, and as a marked tendency to retroversion exists, a pessary becomes the only practical method of giving this support, and I have ordinarily used a small soft or hard rubber retroversion pessary, with or without a bulb, according as the ovaries showed a tendency to prolapse or not. The smallest pessary that will do the work should be used, and, as the patient is so frequently seen, there is no danger of its doing any harm.

By following the above treatment I have been most gratified by results, and patients have gained uteri which gave every evidence, physically and functionally, of being normal. They have all, moreover, in varying periods, acquired an ability to support themselves by their own ligaments. I have thus far never had occasion to perform any operation to aid the ligaments in their work.

A patient is never to be discharged until she is physically and functionally up to normal, and it has become my rule to require the patient to wear the pessary six months after the uterus becomes of normal depth and menstruation is regular. It is then removed tentatively and the patient seen once a week until after the next menstruation, to make sure that the ligaments are sufficiently strong.

One caution seems to be necessary, that is, that we should satisfy ourselves that the flows of blood patients achieve during this treatment are really catamenia, and that the increase in the uterus is actual growth, as shown by the uterine measurement, and not merely swelling due to inflammatory reaction. Bleeding from the uterus accompanied by swelling is easily induced, but that is not what is desired.



J. W. Barnhill, M. D.:

Some years ago I had under observation a woman, mother of two children, who had a *retroflexion of the uterus* with adhesions which probably had its origin in a pelvic peritonitis after the birth of her last child, three years before. I had failed to replace it prior to gestation, with the usual non-surgical methods, and as the discomfort was not great, operative procedure was not recommended. At about the third month of gestation, after a few attempts at reduction with the patient in the genupectoral position, the fundus was raised out of the pelvis, and the woman went on to full term. Dr. Cleveland has reported two cases of retroverted adherent pregnant uterus, quite similar to the above. Retroversion had resulted from pelvic inflammation. In one case two years before pregnancy occurred, attempts at reduction under ether had been unsuccessful. At the second month of gestation he again

failed to replace the uterus; at about the third month she was again placed under ether and the Schultze method employed, when the uterus was easily raised into its proper position. The adhesions which had formerly offered such effectual resistance seemed to have softened with the advancement of pregnancy, and the womb was readily restored to position. The other case in which he had employed the Schultze method had passed the third month and there had already been some loss of blood, attended with bearing-down pains. The uterus about filled the pelvic cavity and probably would not have "risen without assistance. Ether was given, the patient placed on the back, the thighs were bent over the abdomen, two fingers introduced into the rectum, the thumb into the vagina, the right hand over the abdomen; then by bimanual palpation the uterus was raised out of the pelvic cavity."

Prophylactic precautions may do much to prevent displacements. The tight bandage during puerperium should be avoided. Changing the position of the patient frequently during convalescence, in cases of pelvic cellulitis, may prevent formation of adhesive bands. Early treatment with tamponade, sedatives, and posture may do something to prevent prolapsus and the displacements under consideration. While the judicious use of pessaries and other mechanical appliances serves a good purpose, I am inclined to believe that their usefulness in these cases has been much exaggerated. After retroflexion has existed for some time, and the adhesions become firm, they can do no good. Their use in overcoming a retroflexion has been disappointing. It is only appreciable in cases with very mild adhesions, free from suppurating foci in tubes or ovaries. In the latter conditions efforts at replacement are contra-indicated.

Plastic operations, curettage, and trachelorrhaphy may sometimes do good in overcoming the accompanying endometritis. In all cases calling for such treatment it should be carried out at as early a date as practicable. Unfortunately many of these cases have been neglected until adhesions have become so firm, and the uterine parenchyma so altered, that operative procedures are necessary to correct the misplacement. Not infrequently inflammatory adhesions have involved

the fallopian tubes, ovaries, and bowels, and these have become a source of pain and impairment of health.

The other conditions which may be referred to as the cause of retroflexion are appendicitis and local peritonitis from this or other causes. In extensive tubercular peritonitis retroflexion and the involvement of the tubes, ovaries, in bands of adhesions, are no doubt the occasion of a great deal of pain and invalidism. Usually, in such cases the retroflexion is overlooked until the abdomen has been opened for some other complication, as in the following case:

Mrs. A., suffering from pelvic inflammation believed to be tubercular, resulting in obstruction of the bowel, was operated upon by the writer, May, 1898, for the purpose of relieving the obstruction. Very little fecal matter had passed the bowel for ten days. She had been a sufferer for years, having dragging pain in back, pain in bowels, constipation, progressive emaciation, and debility. A more or less general tubercular peritonitis was found, involving the bowels and pelvic organs. The uterus was found to be strongly retroflexed; the ovaries and tube bound down with it in a mass of inflammatory material. In breaking up these adhesions about the ilium and sigmoid flexure of the colon, the uterus was freed, but was not suspended, as it would have exposed a greater surface for adhesions with the bowels. It was, however, supported with a tampon during convalescence and the painful symptoms permanently relieved. She made a good recovery and has since enjoyed fair health, and is able to do her own housework. In this case it is uncertain how much of the good results is to be attributed to the correction of the retroflexion of the uterus. The fact that she has since been comparatively free from the backache, dragging sensation, and leucorrhœa which had been so troublesome before the operation, warrants the conclusion that the replacement of the uterus was a factor in her recovery.

Two definite ends are to be kept in view in the treatment of retrodeviation with adhesions; one, mechanical, having in view the breaking up and absorption of adhesions, and the other, reposition by surgical procedure. After adhesions have been successfully obliterated the case becomes one of simple retro-

flexion, which may or may not require operation. Of this class we do not care to speak, except to say we believe the tampon and pessary are of little value in correcting retroflexions, even of this uncomplicated variety. They may succeed in holding the uterus to a higher level in the pelvis and thus relieve painful symptoms and improve nutrition, but they probably never entirely correct retroflexion, and are often a source of irritation for local inflammation, and we believe in the majority of cases in which these uncomplicated retroflexions occasion pain, constipation, pelvic congestion, prolapsus, etc., that some form of uterine suspension should be had. Massage, electricity, and pressure may do much to hasten the absorption of exudate and adhesions. Such treatment would probably be effectual in the majority of cases, uncomplicated by recurrent attacks of acute inflammation. Hot douches, rectal enemata, and cotton tampon with glycerin serve the same purpose. The most effective method of securing reposition is by conjoined manipulation with the finger of one hand against the posterior wall of the uterus, and the other over the abdomen. It may be necessary sometimes to give an anæsthetic. Cases in which the adhesions cannot be effectually destroyed, as well as those in which they have been practically reabsorbed, but which cannot be retained by mechanical means, are to be corrected by some surgical operation.

The method of operation is probably of "less importance than the decision to attempt a cure by such a procedure." The danger is that too much reliance may be placed in pessaries, tampons, and other local treatment, and that surgical operation, which would almost certainly relieve the condition, may be indefinitely postponed. The operation is the important step in treatment. Intraperitoneal operations are manifestly more suitable, however, for retroflexion with adhesions. Abdominal operations have a decided advantage in revealing the actual conditions and in furnishing the opportunity of dealing with the many complications which are liable to exist. Immediate operation is usually advised in cases of retroflexion with adhesions, or with disease of the tubes and ovaries. Since nature, aided by judicious treatment, may weaken the adhesions by absorption, and thus diminish the area of torn tissue

at the time of the operation, we are inclined to believe that it may be advisable in some cases to postpone operations until acute symptoms subside, and the adhesions have been attenuated by absorption. However, it must not be forgotten that retroflexion causes endometritis and damaging structural changes in the uterine wall.

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George L. Brodhead, M. D.:

During the past few years I have made frequent use of modified bags of Champetier de Ribes, both for *the induction of labor* and accelerating it. These bags, four in number, and varying in size, are conical in shape, made of canvas, covered with rubber, and to each bag a piece of strong tubing is attached, through which fluid is injected into the bag. So firmly are the tubing and bag united that strong traction can be made upon the bag, thus greatly increasing its efficiency. In using this method for the induction of labor one rarely, if ever, ruptures the membranes, and by traction upon the tube contractions are readily excited, the bag acting as a typical water dilator.

The operation is performed as follows: The patient is placed in the lithotomy position (or Sims's position, if preferred), at the end of a table or the edge of the bed; the genitals are thoroughly cleansed with green soap, water, and a one per cent. lysol solution, after which a warm vaginal douche of lysol (one per cent.) is given. Anæsthesia is often unnecessary, but in some cases is required. The cervix, if undilated, is seized with a volsellum forceps and dilated with a steel dilator, or it may be dilated easily with the finger. The smallest of the four bags, or the next in size, has been prepared by scrubbing with soap and water, after which it has been boiled for five minutes. The bag is then folded up, seized with a special Champetier de Ribes forceps, or an ordinary uterine dressing forceps, carefully boiled, and carried through the cervix. If dilatation has been accomplished by the finger and the cervix has not been seized with a volsellum, the bag may be well anointed with sterile vaselin or lubrichrondrin, and passed along the fingers as a guide up to and then through

the cervix. The bag is now filled with sterile water or lysol solution, and the tube tied tightly to prevent leakage.

The operator should test each bag before its introduction, in order to ascertain whether it is a perfect bag, and also to observe the exact amount of fluid which the bag will require to fully distend it. The glass syringe which I use for this purpose is one especially designed by me for use in this operation, although the instrument may be used for many other purposes. The advantages are that it can be easily sterilized by boiling, it is simple in construction, and one can readily see whether it is working perfectly or not. After a few hours the first bag generally slips out of the cervix, then a second is introduced, and so on until labor is well advanced. Gentle traction may be especially desirable to hasten dilatation (as in eclampsia), or where the mere presence of the bag in the uterus fails to excite contractions. To me the use of these bags has been very satisfactory, and I feel sure that a careful trial will show excellent results.

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John O. Polak, M. D.:

I agree with Dr. Brodhead when he makes the statement that each particular condition demands a particular method of induction, yet I doubt if, with the general practitioner, the introduction of bags will ever displace *the bougie for the induction of labor*. The introduction of the bougie is so simple, and, if done properly, is so satisfactory, barring the danger and inconvenience of accidental rupture of the membranes, and this may be obviated by the use of the bougie instead of the catheter. If we must use the catheter it may be made stiff, yet safe, by inserting the stylet, passing it in through the eye of the catheter and flattening the ring at the end until it will pass through the eye, then pushing the stylet up until the ring is buried in the point of the catheter; in this way you overcome the possibility of pushing the stylet through the end of the catheter and puncturing the bag of waters. After these cheap catheters have been boiled they lose all of their resistance and are easily penetrated by the stylet. The ordinary English bougie, if used with the patient in either the Sims or the knee-chest position, can be introduced without

difficulty along the posterior wall of the uterus. The sharp angle must be obliterated by pulling upon the anterior lips of the cervix with a volsellum. The vagina may be loosely packed with gauze, to keep the bougie in place. Withdraw the bougie when labor pains are well established and so avoid the unequal pressure against the bag of waters made by the bougie in the uterus during each pain.

Manual dilatation, in the hands of a large number of men, I consider a dangerous procedure. It is dangerous in this way: We find two varieties of cervixes—one that is dilatable and one that is not. It is easy to dilate the cervix in the majority of cases of placenta prævia because of the low implantation of the placenta and the usual multiparity, making the tissues more succulent and dilatable. But take a primipara with eclampsia; we will find that it is very different; and when you hear it said that any cervix can be dilated manually in twenty minutes, the gentlemen who here made this statement have stretched a point. We must have complete ether or chloroform anæsthetization to obtain prompt and satisfactory dilatation. The point of danger is where we get four fingers in and just before we can get the whole hand through the cervix, it tears. Frequently these ruptures are at the site of old scars. They are always fairly deep tears. I should prefer multiple incision if rapid delivery must be done. In cases of placenta prævia we may obtain dilatation by manual dilatation, tampon or the bag. Regarding the Champetier de Ribes' bags, and Dr. Brodhead's modification, which consist in having four sizes instead of one, these bags are open to the same objection as Barnes' bag, *i. e.*, that we have to introduce larger sizes from time to time. One point regarding the original bag was that, when we once had it in place, it stayed in place until it was forced through the cervix, which must have a dilatation of 3 1-2 x 3 1-2 to permit its escape. One great objection to the Champetier de Ribes' bag is overcome by Dr. Brodhead's bags; this was the tendency to displace the presenting part and to disturb posture by the introduction of so large a bag. This, I believe, was a theoretical objection, for, after an extended use of this bag, I feel sure that no disturbance in posture is actually produced. If it occurs, it is but temporary, and righted as soon as the

head pushes the bag out of the uterus. A glass syringe for filling the bag I consider objectionable. I use the ordinary Davidson syringe, which serves well. I have my bags numbered; the number on the bag indicates its capacity and means how many "squirts" of the syringe it will hold without bursting.

There is one point—and I would like to emphasize this particularly—that steel-branched dilators should not be used to dilate the cervix previous to the introduction of the bag, bougie, or gauze tamponade. I have seen several cases of rupture of the uterus by dilating with these instruments. I have used the Hank's and Hegar's graduated sounds with success, without injuring even the cervical mucous membrane. I should particularly emphasize that, in the early stages, in inducing labor at three, four, or five months, graduated dilatation is safer and almost as rapid; you do not have any ulcerations or abrasions, and you are in less danger of sepsis, of rupture, and get just as good dilatation.

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T. M. Hayden, M. D.:

I would like to call attention to some neglected means at our command for facilitating *the first stage of labor* and of overcoming this rigid os and the general obstruction to free, easy, and normal delivery. Accurate diagnosis of presentation is, perhaps, one point on which the average obstetrician is the most careless, and, I might say, the most unskillful. How often have I asked a consultant in a case, or a brother practitioner, in some case he might be relating, what the presentation was, and would get the reply, "Head presentation," or, "Buttocks presentation," or, with a smile, acknowledging that he had not made out the presenting part.

There is too much trusting to luck in this particular branch of obstetric medicine. This point was very forcibly impressed on my mind by an incident occurring in the early part of my professional career. I was the third or fourth consulting physician called to a difficult labor in a primipara. There did not seem to be a very well-defined idea of the cause of the dystocia. After I examined the patient, the reason of inability to deliver herself seemed apparent, as it required no great skill to ascer-

tain that we had an occipito-posterior presentation to deal with. I asked each of my confrères what presentation we had, and could get nothing from them but that the head was the presenting part. I wanted to use the vectis and convert the presentation into a left occipito-cotyloid, but was overruled. After further parleying I applied the forceps and delivered the child in the exact position in which the forceps first grasped the head, the child being dead, and as the face emerged from under the pubic arch, called the attention of the medical men to the confirmation of my diagnosis, and thereby incurred the displeasure of the most respectable of my confrères. This goes to show what I asserted above, that the average accoucheur is more careless in this point than on almost any other in obstetric practice, yet so much time and pain may be saved the patient and doctor by care here, and the early and complete correction of mal-positions, and, as we have seen, mal-positions and vicious presentation are, by far, the most frequent causes of rigidity of the os so-called, for the reason that they give misdirection to the uterine efforts.

A favorable means in my hands for the correction of some mal-positions of the uterus is the use of the abdominal band in the first stage of labor. This is much more pleasant to the patient than the hand of the accoucheur and is more efficient, besides giving a certain amount of support to the accessory abdominal muscles; it is a means poohpoohed by some, but, nevertheless, a most efficient and deserving one. Another neglected means in the correction of mal-presentation is the use of the vectis, but it must be used early and not attempted after the occiput is impacted, as it were, in the posterior pelvis of the mother. Of course, early diagnosis of the position of the on-coming head is of the first importance. It should be our endeavor to use our skill in the prevention of difficult labor as well as in brilliant operative procedures to relieve when these difficulties have passed the preventive stage.

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H. A. Bruce, M. D.:

After an operation performed under the influence of an anæsthetic, when the patient is put to bed, *hot-water bottles* or cans should be placed down the sides, at the feet, and under

the arms, with a single blanket between them and the patient, where they remain until reaction sets in. They must be watched with extreme care on account of the danger of producing a serious burn, while the patient is unconscious. I regret to say that I have had personal experience of severe and painful burns, taking months to heal, and causing a great deal of suffering, due to a nurse's carelessness in putting hot-water bottles close to an unconscious patient, with insufficient protection between them and the patient's skin.

The room too should be darkened, and the nurse should remain in charge, not leaving the patient alone for a minute. Even after the effect of the anæsthetic has passed off, the *patient should be closely watched*, because women have often been known to get out of bed, while only semi-conscious, either in eager desire to allay their thirst, or to find some morphine to relieve their pain. Dr. Kelly reports the case of an old Irishwoman, upon whom he had performed an abdominal hysterectomy, getting out of bed immediately after, and walking through two rooms and over a brick pavement, into the yard. Another patient of his, a mulatto girl, who had an extensive suppurative peritonitis, persisted in getting out of bed and lying on the floor, never having slept in a bed in her life before. Both of these cases recovered, but they ran a very serious risk of losing their lives. Perfect quiet must be the rule throughout. Restraint must be exercised while the effect of the anæsthetic is passing off, only to the extent of preventing the patient from falling out of bed, or tossing continually to and fro.



H. G. Nicks, M. D.:

The usefulness of *water in diseases of childhood* rests upon (a) its flexibility; (b) its power of absorbing heat; (c) its solvent and cleansing, (d) diaphoretic and diuretic properties. Its flexibility renders it easy of application by many methods. As a full bath, covering the whole trunk; as a spray, or solid stream; and by compresses and packs or sponging.

The immediate effect of cold water applied to the skin is to produce vigorous contraction of the skin muscles, forcibly emptying the blood vessels, driving the blood to the center,

thus stimulating the heart and organs of respiration. This period of contraction is short, however. The secondary effect, that of dilatation, follows. The dilatation lasts a period of time corresponding to the responsive capacity of the patient. Too great cold or too prolonged an application tends to produce paralysis of the skin and so defeats very often the main object of the bath—namely, the reduction of temperature.

In prescribing the cold bath minute directions should be given the nurse or attendants, both as to temperature and technique. Too often the most important point of all, that of friction, is neglected, and you hear the cold bath condemned as an absolute failure and dangerous by many who have failed to insist upon or grasp the technique of its application. And it is not surprising that the pulse becomes feeble and shock supervenes. We must bear in mind that the object to be attained is a stimulation of the nervous system, producing a rhythmic contraction of the blood vessels of the skin. Some shock is of course necessary, and judgment must be exercised in adapting the shock to each.

Cold sponging is one of the most common, easiest used, and useful methods of applying cold, but I fear its full good effect is not often attained. It is doubtful if the common method of passing a cold sponge or soft cloth over the body of a fever patient, aside from a momentary refreshing, is of any value whatever. The stimulating effects upon the skin and nervous system, so needed in the acute febrile attacks of children are not secured by sponging in that manner, and can be secured only by sponging with gentle friction, either with a rough linen cloth or bare hand. Sponging is especially useful in measles and scarlet fever, and with the addition of a little salt to the water will allay the itching and irritating conditions of the skin, securing a degree of comfort for the little patient obtainable in no other manner.

In broncho-pneumonia cold sponging will be found an effective means of securing a reduction of temperature.

The cold pack in case of application stands next to the latter method, but is far more efficient in reducing temperature and stimulating the skin and nervous system. It should be applied in pyrexia of children as often as needed to soothe

and quiet nervous symptoms, or secure reduction of temperature; in measles, scarlet fever, and the pneumonias of childhood where the temperature is high and nervous symptoms pronounced, the cold pack, applied for ten or twenty minutes, will frequently secure rest and refreshing sleep.

In gastro-enteritis the chief indication is to cleanse and purify by removing the bacteria and toxins from the bowels, and the use of drugs by mouth to remove the irritant and disturbing substances from the upper bowel will not often need repetition if the lower bowel is frequently irrigated. This should be done every eight, ten, or twelve hours with warm water, and often the tossing, vomiting, purging child will sink into a quiet, restful slumber; vomiting and purging are much modified. The whole aspect of the case is changed. In addition to the above I frequently give a tepid bath; beginning at 90° and gradually reducing to 80°, maintaining friction. In simple diarrheas a single irrigation is usually sufficient to check the discharges without the use of drugs.

In pneumonias of childhood in their earlier stages the full bath will be found useful, but the greater number will do well with sponging. In severe cases the cold compress, changed hourly, will effectively supplement the cold bath, and maintain its effects. The full bath for pneumonia should last five or ten minutes, entering at 95° and reducing to 85°.

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Edward Reynolds, M. D.:

On looking over the cases of *ectopic gestation* which I have seen during the past year, I find six in which the conditions found before operation were so far obscure as to be fairly representative of the difficulties often met with in the diagnosis of this condition.

The following case, seen with another practitioner, will illustrate. Patient was thirty-four years old; sixteen years married. Two children, two miscarriages; last six years ago. With first miscarriage, thirteen years ago, sepsis, curettage, and in bed eight months. Since then always more or less of a neurasthenic invalid. For ten years after this was liable to sudden and very severe attacks of abdominal pain; then had an

appendectomy by another surgeon, at which time the uterus and tube were found bound down in retroversion, but at the request of the family were not disturbed. After this she was free from pain for two years and until twenty-four hours before I saw her, during which time she had been having another of the familiar attacks, apparently of tubal colic. Her periods had always been fairly regular at from twenty-three to twenty-four days, except that four months before I saw her she had had a week of menstruation, which had occurred after an interval of twenty-eight days and was succeeded by ten days of slight drizzling flow. Examination showed a retroverted uterus with tubal masses on both sides. The question of extra-uterine pregnancy at once suggested itself, but was dismissed, as there were no signs of it, and the patient was inclined to consider it impossible.

She was habitually confined to her bed; I kept her very quiet for about three weeks, watching her along on unimportant treatment, until I was informed by telephone one morning that she was miscarrying. On my arrival I found that she had just passed a blighted ovum of somewhat peculiar appearance, which was sent to Dr. Whitney.

This woman was a chronic invalid, presenting no signs of pregnancy, having had no menstrual irregularities except that one period had been of the normal length, while her habitual period was a few days shorter. She had had no pain other than that she had been accustomed to for thirteen years, but Dr. Whitney reported the specimen to be the uterine decidua of a pregnancy without evidence of chorionic villi or amnion, and therefore symptomatic of a pregnancy outside the cavity of the uterus. On this evidence, and on this alone, I operated, and found an ectopic pregnancy 5 1-2 cm. long and so near rupture that, although it was non-adherent, it was impossible to lift it out of the abdomen without bursting it. It was rendered non-palpable, on digital examination, by the large mass of adherent tubes and retroverted uterus which lay below it.

Dr. Whitney's report was: "The tube from Mrs. B. shows a flattened oval tumor 5.5 by 3.5 cm. At the end of the tube, on the surface, is some hemorrhage and adhesions. At one

part is a shaggy membrane projecting, which on microscopic examination shows branching filaments with clubbed ends, quite flat and corresponding to the villi of the chorion of the tenth to thirteenth week of pregnancy. On opening the mass there was a cavity about 2 cm. long, lined with a very thin membrane. No embryonic remains were found. The diagnosis is a tubal pregnancy with abortion of about the tenth week."



Herbert Terry, M. D.:

I have thought this case of *puerperal eclampsia* worth reporting because a part of the treatment was unusual and apparently of advantage. A primipara about eight months pregnant entered the Providence Lying-in Hospital, having had two convulsions. A third occurred soon after entrance. Ether was given and the cervix, which was not yet "taken up," was dilated manually and the child delivered without accident. The dilatation and delivery required twenty minutes. As the effects of the ether wore off the patient became semi-conscious and I expressed the opinion to Dr. Partridge, who was on duty with me, that she would recover easily if the temperature did not rise. A fourth convulsion occurred just as I was about to leave the hospital, and about nine hours after the delivery a series of convulsions, lasting about an hour and a half, came on. After these, the unconsciousness was complete and the temperature began to rise. Sixteen hours after the delivery the temperature had reached 105° F., and the pulse-rate about 192 and correspondingly weak. I have never known recovery to follow in any case of puerperal eclampsia when the temperature reached any such height; and, bearing in mind the frequency with which convulsions accompany high temperature in children (*e. g.*, at the beginning of sore throat, pneumonia, scarlet fever and the like), and coma and convulsions accompany the high temperature of heat-stroke in the adult, it seemed to me possible that lowering the temperature might act as well in this case as in those. A cold sponge bath brought down the temperature to below 104°, but there was little improvement otherwise. The patient was then carried to the bathroom and given a tub bath beginning at 90° F. and

rapidly cooled to 60° F. She remained in the bath twenty minutes, and when removed the pulse-rate had gone down from 192 to 144 a minute, and the patient showed some signs of consciousness. Other treatment was then resorted to and recovery resulted. What I wish to call attention to is the fact that high temperature may be an important factor in causing death after puerperal convulsions, and that reducing such a temperature was, in this case, apparently a most important aid to recovery.



Walter McKeown, M. D.:

The cause commonly ascribed to *pernicious vomiting in pregnancy* is reflex irritation of the stomach, from irritation of the sympathetic nerve ending in the uterus, caused by this organ's growth and stretching of the uterine walls. I wish to call attention to the possibility of auto-intoxication as a cause of this condition, and while reflex action may be common, I believe that severe vomiting is much more frequently toxic than is generally recognized.

The development of the fetus must throw into the maternal circulation products not present at any other time. Some product so produced so affects the mother as to diminish or abolish the nauseating after-effects of chloroform. The ease with which this anæsthetic may be administered to a pregnant woman, even at a very early period of her pregnancy, and the rarity of nausea following its administration, are familiar to everyone. That some antidote to the nauseating effect of chloroform is present would seem the most reasonable explanation of this phenomenon. Again, there can be no doubt but that renal insufficiency is not enough to account for the conditions met with in eclampsia. Some specific toxin is present in the maternal blood as a result of fetal metabolism. From this it is no great stretch to believe that in the severe and dangerous forms of vomiting met with, and to which the term pernicious is applied, some toxin is present provocative of the symptoms, and in support of this I offer the following:

Mrs. K., aged twenty-six, miscarried at three months in her first pregnancy, during which time she suffered from severe, but not alarming vomiting. Her second pregnancy was un-

eventful. She was delivered at full term of a healthy child. She became pregnant a third time, and almost immediately suffered from severe nausea. This became more marked during the first two months, and at the end of this period the vomiting was so persistent as to lead her to consult me for its relief. She was a strong, well-nourished woman, not at all neurotic, and exceedingly anxious to carry her child to full term. I prescribed the usual remedies, with apparently no effect.

About the middle of the third month her vomiting became persistent. Everything taken into the stomach was ejected, the retching being constant, even when this organ was empty and she was being fed per rectum. Her temperature became subnormal, her skin blotchy, as if from degeneration of the blood corpuscles, and exhaustion extreme. These symptoms increased gradually, and were most marked during the second two weeks of the third month, and everything pointed to a fatal issue if she were left unrelieved. She was strongly opposed to any operative interference, and I shared her objection; but as I thought that dilatation of the cervix might give relief, and not necessarily produce abortion, I determined to have recourse to this procedure. When I pulled down the cervix I was surprised to see oozing from the os—although she had previously not had the slightest discharge either of blood or pus—a thick, purulent discharge, the appearance of which left no doubt in my mind that the fetus was dead and decomposition going on. I dilated the cervix, passed in a curette, and scraped out a lot of broken-down placental tissue. With it came a fetus about the size of one's little finger, the arms and legs digested off, and having the appearance of having been dead for at least two weeks. The point I wish to make is this: the fetus was dead for say at least two weeks, during which time there was certainly no increase in the size of the uterus. If the vomiting were reflex, some improvement should have been noted following the diminished tension upon the uterine muscular fibers, and through them upon the nerve ending; but, as a matter of fact, her symptoms became worse. Her vomiting increased, and her general condition became rapidly alarming after the death of the fetus and its commencing decomposition.

Levin J. Woollen, M. D.:

Not only in the management of the hemorrhages attending placenta prævia, but in other cases of *ante-partum flooding*, a properly constructed and applied *sponge tampon* is of the greatest value. Many of the modern authorities not only attach but little value to the use of any tampon, but some condemn it as being really dangerous, because of the false security it gives to those who trust to its use. I venture the assertion that no practitioner who holds such an opinion has ever had any experience with a tampon properly constructed and properly applied. I admit that a tampon made of gauze, silk handkerchief, muslin, or entirely of cotton, is of but little use and will always be found unsatisfactory. Tampons made of such material will not be a bar to the escape of blood. Nor can we by such means cause an evenly distributed pressure to be made against the lower segment of the uterus sufficiently firm to close the bleeding vessels in cases of placenta prævia.

Several objections have been made against the employment of sponges as a material for tamponing. It is held to be almost impossible to render it aseptic. A properly selected sponge can be cleaned by first picking out all the lumps of lime that can be felt. Then let it soak in water acidulated by muriatic acid. This will dissolve the lime contained in the sponge, after which it can be washed two or three times in hot water. New sponges prepared in this manner are perfectly safe. Always use a new sponge in each case.

The proper sponge for a tampon is not a surgical or Mediterranean, but a rather coarse, soft one. It should have several holes in it, and this part of the sponge should be placed against the os uteri. The blood flows into these openings and becomes coagulated, forming several clots instead of one, as would be the case if any other tampon were used. It is best to use as large a sponge as can be conveniently introduced into the vagina while wet. Press sponge firmly against the os and then begin packing the vagina with prepared cotton. This can be introduced in rather small pieces at a time, and every part of the vagina must be closely packed. When the vagina has been tightly packed, a roll of cotton, half the size of one's fist,

should be placed against the packing at the entrance to the vagina and held in place by a T bandage closely adjusted. If the hemorrhage be alarming, so that immediate danger be anticipated, it is best to instruct a nurse to sit by the patient's side, and placing the palm of her hand against the cotton so as to keep the packing in close contact with the lower segment of the uterus, make firm pressure against the roll of cotton.

In all cases where I have used it, the tampon has, for the time being, arrested the hemorrhage. This is done most likely by pressure of the tampon against the lower segment of the uterus, counter-pressure being made by the presenting part of the child. It is true that after a while (possibly a few hours) the blood begins to show itself externally, the tampon being soaked with blood. This is to be expected for the reason that after a while the walls of the vagina, and other tissues become relaxed, so that the pressure of the tampon is much diminished. In such cases the tampon should be removed, and if the parts are not in condition to speedily extract the child, a fresh tampon must be applied.

I have never had any bad results from the use of the sponge tampon. In country practice, when my duty to other patients has prevented me from remaining long with a case of ante-partum flooding, I have tamponed the vagina and left instructions to send for me if the flooding returned; but otherwise to let the tampon remain as long as eighteen hours before removing it. In ante-partum hemorrhage, when the os is sufficiently dilated, I first tampon the cervix, using a small sponge to which a string has been attached. The larger sponge can then be introduced as above directed.



E. B. La Fevre, M. D.:

A child, aged two years and three months, was brought to me in the spring of 1896. She had suffered with paroxysms of an epileptoid nature since she was five months old. There was no history of traumatism, and the spasms were soon discovered to be not of a true epilepsy, but were typically epileptoid. She had gone pretty much the rounds of the doctors in the locality, had been dosed with all manner of antispasmodics, all with-

out the least possible good, in so far as a cure was concerned. Heavy doses of the bromides would lessen the frequency and severity of the attacks, but just as soon as the bromides were dropped, the paroxysms would recur with the same frequency and severity as theretofore. The same was reported of the other antispasmodics and sedatives used. After careful inquiry, I arrived at the conclusion, as stated above, that I had not a true epilepsy, but *a reflex neurotic condition*, superinduced by an irritation in some part of the body. Heart, lungs, and the gastro-intestinal tract afforded no clew. It is true that the appetite was capricious, and the bowels were, for the greater part of the time, constipated, but I could not satisfy myself that the stomach or intestines would account for the attacks. The urine was wholly negative. After a careful inquiry, I found that the child wet the bed nightly. She was in the habit of fondling the genitals whenever her attention was not occupied with other matters. These two symptoms were the first to attract my attention and to lead me to make an examination of the external genitals. I found the prepuce adherent around the entire margin, and the sack thus formed distended with smegma. The parts about the clitoris were very sensitive; also the labia, both major and minor. Before completing the examination, and while gently attempting to force back the hood, the child had one of its epileptoid attacks. This satisfied me that I had found the point of irritation.

The following day I placed the child under chloroform, and stripped back the hood, fully exposing the glans and uncovering the corona. The glans and preputial mucous membrane were red, hot, and inflamed. Two or three small hard concretions were squeezed out from the glands of the mucous membrane. Upon tearing up the adhesions, perhaps a dram of a foul-smelling and irritating smegma escaped. The fluid contained a few cheesy particles. The prepuce appearing to be redundant, I excised a strip of skin and mucous membrane, and put in some fine sutures, much after the fashion of a circumcision in the male. The happiest results followed. As the inflammation, with the consequent irritation subsided, the paroxysms gradually faded away; although it was some six weeks before the attacks altogether disappeared. The bed-wetting

also ceased, and there was no further disposition to handle the genitals. There has been no return of the epileptoid seizures.

The acute-minded physician can readily draw several valuable lessons from this short, simple case report. In the first place it shows the necessity of clearly differentiating between true epilepsy and an epileptoid manifestation. Secondly, it teaches that having once decided that there is an epileptoid condition present, it demonstrates the value of carefully seeking for the point of irritation, and, if possible, removing the same by whatever means required. Next are shown the intense reflex neurotic symptoms that may follow upon an adherent prepuce; and lastly, the beneficent effects of a breaking up of the preputial adhesions, and a freeing of the clitoris.

♦ ♦

Henry R. Hopkins, M. D.:

Observation amply demonstrates that *milk is a most sensitive and perfect culture medium for the microbe of scarlet fever*. At the present time infected milk seems to be the chief source by which the disease is communicated. The coincidence of the outbreak of scarlet fever and the milk route of a single dealer has been shown over and over again and of itself proves the relation of the disease to the milk supply; this becomes a demonstration, when search of the milkman's premises reveals a case of desquamating scarlet fever in his family, and brings out the point of where the responsibility of the medical adviser in the case comes in.

♦ ♦

C. L. Hall, M. D.:

I recognize the existence of actual pathological conditions in the ovaries and tubes and pampiniform-plexus which demand surgical interference in order to obtain relief, and I claim a ready willingness to resort to such measures in proper cases, but I feel that I am warranted in asking consideration of some conclusions forced upon me by a rather long experience. I believe there is a *misleading significance in ovarian pain*, and I feel that I am justified in claiming that pain in the ovary does not necessarily depend upon pathological changes, and that the rational conclusion in considering so sensitive an organ as

the ovary is that the pain experienced is often reflex and sympathetic.

We talk of the importance of recognizing uterine reflexes, and yet I am convinced that we often fail to recognize in ovarian pain a genuine uterine reflex. Pain in the pelvic and abdominal cavities from defective elimination by kidneys and bowels and auto-infection produced thereby is recognized by every careful observer. I am satisfied that insufficient consideration is given the symptomatology in diseases of women. When we consider the close anatomic relations between the ovaries and uterus it seems strange to me that we have not recognized the close sympathetic conditions that must exist and not consign every painful and even tender ovary to total ablation. We know that infection, as a rule, progresses from the endometrium to the tubes and ovaries, and experience has taught us that where this pathological condition exists, and where one ovary with the tube is removed, that sooner or later the other tube and ovary become involved. These are actual conditions seen by all, but we fail to take cognizance of the possibility of a reflex or sympathetic pain in the ovaries with an inflamed endometrium and a stenosed cervix.

It often happens that women consult me for what they consider ovarian diseases, and with bimanual examination and palpation I find the ovary tender, as, indeed, even every healthy ovary is when brought between counterpoising pressure, but further investigation shows that the real tenderness and pain is experienced when the uterus is palpated and elevated in the pelvic cavity, satisfying me that the source of the trouble is not in the ovary, but in a parametritis associated with endometritis. In these cases, while palliation of the distress measurably follows the hot douche and the hygroscopic tampon, the real and marked relief follows dilatation of the cervix and the application of antiseptics to the endometrium. When treated in this way my patients soon cease to complain of their ovaries and recognize the uterus and its immediate surroundings as the fons et origo of all their trouble. With the subsidence of the uterine catarrh and the general improvement that follows the treatment, patients improve in appearance and strength. Their faces no longer present the troubled and

careworn expression, and the general appearance of relief is so manifest as to be recognized by the laity; furthermore, these women, often sterile, have become proud and happy mothers. In many cases where I can obtain the consent of the patient, or her time for treatment is limited, I have resorted to curettage with the gratifying result of giving entire relief.

♦ ♦

W. E. Gordon, M. D.:

Having been present at nearly three hundred cases of labor, I have had a fair opportunity of watching the process and its effect, both with and without anæsthesia, and feel justified in directing the attention of those who have hitherto entertained adverse opinions, to the advantages to be obtained from the judicious use of chloroform.

The superiority of *chloroform* over ether *in labor* is no longer a matter of discussion; however, I do not hesitate to use the latter when the former is not convenient from any cause.

Chloroform possesses the advantages of being compact, its inhalation pleasant, easily managed, rapid in its action, safer at night, and its after-effects nil.

Anæsthesia, and not narcosis, is the object aimed at, and the dulling of sensibility is much more readily effected by chloroform than ether.

The extent to which anæsthesia should be carried depends upon the condition of the patient, the influence upon uterine contractions, and the necessary procedures for delivery.

In the hyperæsthetic primipara I begin the use of chloroform just before the end of the first stage, giving on the mask a few drops only at the beginning of each contraction. By this method the pain is numbed, the courage and endurance of the patient conserved, without in the least retarding the work of the uterus. The patient at no time loses consciousness in this stage.

As the vertex emerges from the cervix I usually push the chloroform a little more, as the pain is as severe at this time as when the vulvar orifice is being passed.

With the descent of the head through the vagina, I use the chloroform a little more freely again—pushing it to full nar-

cosis if there is any unusual delay and the perineum is endangered.

The mask is now removed and is not resorted to again, unless for repair work, which I have seldom found necessary. By practicing a little economy,—and by the way a good thing to practice when using an anæsthetic,—I rarely find it necessary to use more than an ounce of chloroform in an ordinary case.

The anæsthetic should not be used during the third stage, for the relative safety of the chloroform in parturition ceases with the birth of the child. After delivery it favors relaxation of the uterus, and consequently predisposes to hemorrhage.

Chloroform is specially indicated in the hyperæsthetic patient who is unaccustomed to pain, in labors exceedingly painful from colic, previous disease, or undue pressure. It is also indicated where contraction is irregular or spasmodic and labor delayed; in too rapid labors, where the integrity of the pelvic floor is threatened or there is danger of too rapid emptying of the uterus; in eclampsia always and in all operations, such as forceps, version, etc.

Translations.

OVARIAN PREGNANCY.

In discussing the possibility of true ovarian pregnancy, Lawson Tait laid down certain conditions which must be fulfilled before a definite assertion of its presence could be made. Thus both of the fallopian tubes and one ovary must be found absolutely intact; the other ovary must constitute the gestation cyst, and in the cystic wall there must be found microscopic evidence of ovarian tissue. Condamin (Lyon Med.) has recently had under his care a case in which these conditions were, he believes, sufficiently fulfilled for the purpose of definite distinction. His patient, who is now thirty-nine years of age, was married at eighteen, and miscarried six months afterwards. In November, 1893, she ceased menstruating, and during the following months presented the usual signs of pregnancy. In July, 1894, abdominal and sacral pains occurred and lasted for four days, and the breasts became filled with milk. Menstrua-

tion reappeared two months later, and the patient declared that for three years the size of the abdomen progressively diminished. In November, 1901, she suffered from renal colic. When examined at this time the right side of the abdomen was found to be occupied by a hard tumor, which extended to a little above the umbilicus. The cervix uteri was displaced to the left.

At the operation, a large white cyst was found, taking origin from behind the right broad ligament. The uterus was displaced to the left, but both it and the two fallopian tubes were of normal size and appearance. The left ovary was a little enlarged, but healthy. The tumor had to be freed from the appendix and intestines. The pedicle was of moderate size and corresponded to the entrance of the vessels. No trace of a right ovary could be found after removal of the cyst. The patient made a rapid recovery after the operation. The walls of the cyst were uniform, white, and pearly in places. The fetus was well developed and not calcified. The placenta was implanted at the point of entrance of the ovarian veins. The cyst wall was unfortunately not examined histologically until it had been for some time in Müller's fluid. The most that could be said was that it gave the visual and tactile impression of certain ovarian cysts, and it was hardly probable that after seven years' distention unmodified ovarian tissue would be seen.

CONGENITAL ANUS VESTIBULARIS: ABORTION.

Zander (*Centralbl. f. Gynäk.*) publishes a case where the rectum opened into the vestibule in a well-developed woman, aged twenty. She did not begin to menstruate until fifteen, but the breasts were large and the muscles firm and strong. After coitus she frequently complained of a desire to pass a motion. The catamenia had been quite regular from their first appearance until about a month before she sought admission into a lying-in hospital on account of uterine hemorrhage, which had continued for a fortnight. On exploration, masses of scybala were detected in the vagina. The labia majora were normal. On parting the nymphæ, three instead of two openings were detected. The first, the meatus urinarius, was normal; behind it lay the vaginal introitus, somewhat narrow; and one-fifth of an inch posterior was a wider orifice bounded behind by the posterior commissure. This orifice, representing the anus, was surrounded by wart-like elevations of mucous membrane; resistance, not very strong, was felt on introducing the finger into the rectum. There was a distinct sphincter in-

ternus. The septum between the introitus and the vestibular anus was simply the termination of the walls of the vagina and rectum. Traces of a hymen were detected, but behind the vestibule there was no indication of any anus. The vagina above the introitus and all the upper part of the genital tract were normal. Pieces of membrane were found in the uterine cavity and afterwards removed, without difficulty and with good results.

FETAL INCLUSION IN ASCENDING MESOCOLON.

Ahrens (*Arch. f. klin. Chirurg.*, vol. lxiv, 1901, Part 2) describes how a tumor as big as a man's head was enucleated from the ascending mesocolon of a girl, aged seventeen. It held nearly seven pints of a thick brown fluid. Its walls contained all the component parts of the stomach and intestine with ulceration of the mucosa. The epithelium corresponded to that of the mouth, esophagus, bronchi, and trachea, as well as that of the stomach and intestine. The brown fluid contained pepsin and a great deal of blood. Thus the cysts represented a second alimentary canal, quite unconnected with the normal stomach and intestine; septic ulceration followed by hemorrhage had occurred.

BUTTERMILK AS AN INFANT'S FOOD.

Taxeira de Mattos (*Jahrbuch für Kinderheilkunde*) of Rotterdam describes the buttermilk method of infant feeding so largely used in Holland during the last six years, in conditions of both health and disease. This food, which is very cheap there, is particularly serviceable for children of the poor, who suffer so much from dyspepsia and who cannot afford costly mixtures, or milks. Further, the composition of human milk appears often not to be the most desirable in dyspeptic states. Buttermilk differs totally from human milk, yet it frequently proves curative when the latter fails.

Obtained from the dairy it should be a sour fluid, full of finely flocculent suspended curd. It must be boiled at once, but, to prevent wholesale curdling, a level tablespoonful of ground rice or flour to each liter (thirty-five ounces) must be previously mixed with it. The boiling should be done over a slow fire, in an enameled pot, constantly stirring it till it has boiled up three times. Two or three piled up tablespoonfuls of sugar are added to each liter; this must not be milk sugar,

but cane or beet. Metal spoons must not be used, as the lactic acid would act on them. Thus prepared the food has a yellowish color and sourish sweet taste, and is not more curdled than it was before boiling. The nipple of the bottle must have a large perforation to let the curd through.

A number of cases are cited by the author, and afford examples of the curative effects of this food in atrophic infants, in those passing sour stools containing white particles, and in infants with whom human milk disagrees. The effect on the intestines is greater than that on the stomach; for, while it usually stops vomiting, that very symptom may be induced by it or persist under its use to a certain extent, but need not be taken as a contraindication, as it can be checked by bismuth or nitrate of silver. The same applies to slight diarrhea. The motions change immediately; they become homogeneous, less in amount, and more consistent. From being sour their reaction becomes alkaline; this is due to ammonia produced by the bacillus butyricus, which is the most important organism in buttermilk stools. The *B. acidi lactici* occupies a much more subordinate position. Both these germs are present in un-boiled buttermilk. A remarkable improvement in nutrition often occurs at once, even 1 or 1¼ lb. being gained in a week.

The nutritive value of the food depends on (1) the large amount of sugar administered in an acid medium, which seems to prevent it from fermenting in the gut; (2) the special digestibility of the casein, from its being curdled during the process of agitation in the churn, and thus occurring in a finely comminuted state. The anti-fermentative action depends probably on the lactic acid—present, indeed, only in very small quantities, but definitely altering the reaction; either this acts by setting loose more HCl, or else it may directly inhibit the *B. lactis aerogenes* in the upper reaches of the intestine. Lactic acid does not injure the digestive apparatus and does not cause rickets. The lower percentage of fat (one-half per cent.) makes it suit dyspeptic states. The starch in the meal that is added is nearly all dextrinised and dissolved. Buttermilk is not a sufficient food for infants under four weeks of age; they need more cream. Rickets very often affects buttermilk children to a slight degree, delaying dentition and skull closure. Bad rickets or scurvy rickets are never seen, however. Rickets is so common a disease and depends so much on environment and heredity that it cannot be wholly ascribed to this food. Anyway, the children who gain weight also improve in color and vigor, and are not merely bloated with water or fat. Buttermilk should be got from a reliable firm, as it is liable to be diluted, contaminated, or too sour. It can be made at home at a small outlay on a hand-churn, the milk being left

to ripen for twenty-four hours before churning, a little sour milk being previously added to turn it. Sweet buttermilk is not to be used; this has no suspended curd. The quantity taken should be the same as other milk, the caloric value of both being about 700. It should be introduced into the diet gradually, and, after several months' use, left off by small substitutions of sweet milk. Infants relish it, and may soon be allowed to drink of it *ad libitum*, and thrive on it wonderfully. It has been introduced recently at Berlin by Professor Heubner with good results.

METRITIS DISSECANS: ABSCESS OF UTERUS.

Von Franqué (*Sammlung klin. Vorträge*) detected both these conditions in one patient. She had provoked abortion at the second month, and had often been pregnant before. The detached ovum lay in the cervix, and was removed; the uterine wall was scraped with the nail, and the cavity washed out with an injection. The temperature rose, and the patient remained feverish for three weeks; then a tender swelling was detected on the left border of the uterus, simulating a tubal abscess. A week later pus escaped freely from the vagina after a rigor, but the patient continued ill and feverish for six weeks. For nearly as long a space of time she seemed all but well; at length, quite suddenly, a slough of a great part of the inner wall of the uterus came away, just four months after the abortion, and complete recovery ensued. Metritis dissecans is exceedingly rare after abortion. In nearly all cases already published it followed lingering or instrumental labors at or near term. Damage from the fingers or instruments, and, on the other hand, endometritis or other morbid changes during pregnancy, have been noted in many cases. The determining cause is puerperal infection of a uterus with tissues not competent to resist it. The streptococcus is found in the eliminated tissues and in the thrombosed uterine vessels. Beckmann believes that these germs enter the vessels and set up thrombosis, which entails the sloughing which is the essential feature of the disease. The symptoms of metritis dissecans are feverishness after a bad labor, fetid and purulent lochia, and ultimate discharge of more or less of the uterine wall in a state of necrosis. This pathognomonic symptom has been observed as early as the fifth and as late as the forty-seventh day. In Von Franqué's case the slough came away much later. The discharge of the sloughy tissues is generally followed by fall of temperature

and recovery, but in seven cases the sloughing extended through all the coats of the uterus, and the patient died of peritonitis. In one case utero-intestinal fistula is recorded. Beckmann rates the mortality at 27.5 per cent. The uterus is nearly always damaged in convalescent cases, its cavity being more or less obliterated.

Expectant treatment alone is of avail; uterine injections must be avoided. Abscess of the uterus is also rare, though better known. It may be due to gonorrheal or tuberculous infection, but it is usually associated with the puerperium. A wound of the uterine tissue is a very frequent concomitant. The abscess usually lies near the insertion of the fallopian tubes or along the lateral borders of the uterus, where the big lymphatic vessels lie. The uterus increases greatly in size. The symptoms of abscess are fever, rigors, sharp abdominal pain, strangury and tenesmus, and enlargement with great tenderness of the uterus. The abscess may form a simple projection from the uterus, but it has often been taken for a separate tumor. Fluctuation cannot be defined. The lochia are fetid. When the abscess opens into the uterine cavity, it may discharge for a long time; but it may burst into an adjacent structure or into the peritoneum. Puerperal abscess of the uterus is a grave affection, about three-quarters of the cases end fatally. When the abscess has burst into the uterus, the cervix will need dilatation, then the opening in the abscess must be dilated and drained. When diagnosis is made before rupture, abdominal section is the right treatment. Incision of the abscess and drainage may be sufficient, but when the abscess is multiple hysterectomy is demanded. In conclusion, care must be taken not to confound metritis dissecans with endometritis dissecans, which is a severe form of membranous dysmenorrhea.

TUBERCULOSIS OF THE CERVIX UTERI.

Alterthum (Centralbl. f. Gynäk.) observed this condition in a very marked form in a woman aged thirty-six, whose father had died of laryngeal phthisis. In youth she had enjoyed good health. The catamenia began at fourteen and were regular, lasting three days, free and painless. In 1888 she was delivered spontaneously. In 1896 she aborted at the third month; hypogastric pains followed the miscarriage, and she lay in a hospital for several months, declining any operation. Health had been bad ever since; constipation and painful defecation caused much suffering. In May, 1901, she aborted at the second month; the pains grew worse, and for eight weeks,

until Alterthum examined her, the temperature was high, and free purulent discharge escaped from the vagina. The period was still regular. There was no pulmonary lesion. The cervix was short, the os externum gaped widely. A swelling like a polypus, which bled on touch, was attached to the posterior lip of the cervix. The entire pelvic cavity was filled with tuberos masses varying in consistence; they pressed down into the posterior and lateral fornices; they could not be made out distinct from the uterus. They were firmly attached to the bony walls of the pelvis, and they displaced the rectum considerably to the left. Above the sphincter a constricting ring of deposit was detected, as often noted in parametritis. The above appearances suggested cancer, with old parametritic and perimetritic exudations. Hence the polypoid mass was in part excised and prepared for the microscope. The appearances seen in sections carefully examined showed that the disease was undoubtedly tuberculous. No operation, it appears, was deemed advisable. Alterthum suspects that the tubercle entered the system with some septic germ, no doubt after the first abortion. He dwells on the ring or ferrule of hard deposit round the rectum common in parametritis, but not hitherto observed in tubercle of the cervix.

SIMULTANEOUS PREGNANCY IN BICORNUTE UTERUS.

Maire of Vichy (Bull. de la Soc. d'Obstét. de Paris) was consulted in August, 1899, by a primipara, aged thirty-five, who had missed one period. She had married a second time; her present husband had been a widower, and neither had become parents by the first marriage. The vulva was normal; it covered a depression not an inch deep, in which coitus took place. The vagina was divided into two by a very stout septum, and examination by the little finger though practicable, was painful. Two masses of the size of a fist lay above the pubes. They moved independently; one was very hard and the other doughy, so that double uterus, pregnant on one side and affected with fibroid on the other, was diagnosed. Maire applied an *écraseur* to the vaginal septum to avoid hemorrhage, which might have caused abortion, and divided it. At the fourth month the patient aborted. The half uterus suspected to be fibromatous proved to be gravid, as it was the half that emptied itself at the abortion. Demelin attended on that occasion. At the seventh month Maire delivered the patient. Contractions were weak, so he emptied the remaining half uterus by aid of the forceps. The child weighed 5 1-2 pounds. Then he found that the

bodies of the uteri were completely separate, the cervixes being distinct, but united, like the barrels of a fowling piece.

THE SURGERY OF RUPTURE OF THE UTERUS.

Törngren (*Centrabl. f. Gynäk.*) relates two cases where he operated by different methods for spontaneous rupture of the uterus during delivery. The first patient was forty-one and in her seventh pregnancy; two labors had been instrumental. Labor set in at term; it seems to have been mismanaged. Sudden pain and cessation of the uterine contractions occurred fifteen hours after the beginning of labor and about six or seven after rupture of the membranes. Next morning the abdomen was much distended, and the fetal breech could plainly be felt under the parietes. A catheter was passed into the bladder, blood came away, and the tip of the instrument could be felt in the upper part of the vagina. Basiotripsy was practiced. As the head was pushed a little up above the brim a considerable amount of blood escaped. The child was easily extracted; the placenta lay in the peritoneal cavity to the right of the uterus. There was a T-shaped laceration, running across the front of the lower segment, with a long vertical prolongation involving the vesico-vaginal wall very extensively. The hand could be passed through this enormous rent into both the peritoneal and the vesical cavities. The transverse as well as the vertical rent was closed by suture from the vaginal side. The abdomen was opened on account of the damage to the bladder. The transverse rent, 3 1-2 inches long, extended into the right broad ligament, and much clot lay between its layers. A piece of sloughy tissue was trimmed away from the torn muscular wall of the uterus; there was fetid air in the peritoneal cavity. The rent in the bladder and muscular coat of the uterus and the torn peritoneum above the part already sewn up from below were united with catgut. Blood and sanious fluid were removed from the peritoneal cavity, and the abdominal wound was closed without drainage.

The patient died within twenty-four hours; clot was found in the peritoneal cavity. The second case was in a woman aged forty-three, pregnant for the twelfth time, and with extreme pendulousness of the abdomen. The pelvis seemed fairly capacious, but the child's head was very large. As the head was badly placed turning was practiced. The head could be easily pushed aside, but the operator's left hand proving awkward the right was introduced, then the foot was drawn down. A transverse rupture in the inferior segment was detected during this manipulation, and the fetal head protruded through

it. The child (who died in two hours of intracranial hemorrhage) was extracted and the placenta followed. About seven hours later Törnngren opened the abdomen. There was much subperitoneal hemorrhage, even behind the parietes, detaching the peritoneum. The appendages, very vascular, were tied off, a posterior peritoneal flap made on the lower part of the uterus, and then that organ was amputated through its lower segment at the level of the rent, which was four inches in length. The peritoneal flap was sewn to the anterior peritoneal coat of the uterus. A piece of iodoform gauze was passed into the lower end of the wound under the detached peritoneum, as far as the uterine stump. This extra-peritoneal drainage answered well. The patient made a good recovery.

ENTRANCE OF AIR INTO THE VEINS OF THE PUERPERAL UTERUS.

F. Sengler (Münch. med. Woch.) reports a case of death from so-called air embolism in parturition. The patient was a 6-para, forty-two years old, and gave the history that all her confinements had been in some respects abnormal. The pelvis was a flattened rickety pelvis. She was admitted into hospital (lying-in-ward) for her confinement. The fetus presented by the second face presentation. After seventeen hours, during which time the pains were strong, the baby was born, without help, and weighed about six pounds. The placenta did not follow. After three hours expression was resorted to, both without and with anæsthesia, but to no effect. Hemorrhage became more profuse, and the uterus was found to be atonic. The placenta was, therefore manually detached. The uterus was douched with one per cent. solution of lycol at 104° F. The hemorrhage continued, and the uterus remained flaccid. Two ergotin injections were given, and, later, an intravenous injection of saline fluid. She became suddenly worse, was restless and dyspnoic, and the pulse became barely perceptible. The hemorrhage continued, and to arrest this the uterus was plugged with iodoform gauze. In spite of camphor, ether, champagne, etc., she died half an hour after the delivery of the placenta. Post mortem, the heart was found to contain frothy blood. The vessels were ligatured before it was removed, and under the touch of the finger it could be recognized that it contained fluid and air. It was tympanitic on percussion. The veins also contained frothy dark blood. The liver was enlarged, and the blood contained in it dark, but not frothy. Sengler carefully argues from the result that death must have

been due to the entrance of air into the placental spaces, and thence into the veins and right side of the heart.

HYSTERICAL CONTRACTION OF THE GRAVID UTERUS.

Guillermin (L'Obstétrique) reports the case of a primipara who received a shock, causing great fear, during the fourth pregnancy. Violent abdominal pains set in. The uterus was in a state of tonic contraction, feeling as hard as wood at times; the gentlest palpation caused severe pain. The cervix was closed, and there was no vaginal discharge. Threatened abortion was diagnosed, but though opium was given in enemata and morphine hypodermically the pains persisted for several days. Then a neurosis was suspected, and distinct evidence of hysteria was obtained. Tepid baths, bromides, and valerian proved of temporary benefit only. Hypnotic suggestion was at length practiced, and the uterine contraction vanished at the first sitting. Under the influence of slight emotion it returned a few days later, but was promptly stopped by a second suggestion. Then there was no further recurrence of the symptom, and four months later the patient gave birth to a healthy male child weighing over 7 1-2 pounds.

SUDDEN DEATH IN CHILDBED.

This subject was discussed last year at a meeting of the Obstetrical Society of Cologne. Twelve cases occurred in 10,334 labors conducted from 1888 to 1899 inclusive, by the Midwives, Institute in the Rhine City, making a percentage of 0.11. In 2 of the 12 the death was due to pulmonary embolism, a proportion lower than might have been expected. Schäfer (Monats. f. Geburts u. Gynäk.) related a distinct case of air embolism. The patient, aged forty, terminated her fifteenth pregnancy spontaneously at the seventh month, after much flooding. The placenta was detached manually. There was atony of the uterus which could not be controlled by ergotin and intra-uterine injections, so the tampon was applied to the uterine cavity. As anæmia was acute, autotransfusion of artificial serum was practiced. Death occurred suddenly one hour later, after restlessness, dyspnœa, and cyanosis. Soon after death the necropsy was undertaken; after tying of the great vessels the heart was removed and carefully opened under water. Bubbles of air escaped when an incision was made into the right side of the heart; the left ventricle was fairly contracted, and contained a little fluid, very pale, and slightly yel-

low blood. The vena cava inferior contained pale reddish-brown blood full of bubbles. Air was also found in the pelvic veins. The presence of air in the veins is particularly dangerous where acute anæmia exists.

LOCALIZED ŒDEMA IN PUERPERAL INFECTION.

Budin (Bull. de la Soc. d'Obstét. de Paris) dwells on the frequency of irregular and localized œdema, appearing on different parts of the body some time after the advent of puerperal sepsis. The chief importance about this condition seems that it is frequent in the lower extremities, and then may be taken for phlegmasia dolens, though there is no plugging of veins nor deep general œdema of the lower extremity. Budin describes a case where rigors occurred on the fourth day of the puerperium, and the curette was used. In three weeks the right foot became œdematous, and then the right thigh; the swelling disappeared from the right lower extremity in a very irregular manner. In the fourth week the left foot became swollen; by a week later both feet, as well as the legs and thighs, were free from swelling, and the patient soon recovered. Perret related in 1901 a case where œdema of the lower extremities commenced just one calendar month after delivery, where septic infection had occurred. The œdema disappeared in a few days. As in Budin's case there was no pain such as is seen in phlegmasia dolens. Budin himself attended a bad case of post-partum hemorrhage in a lady who was already reduced by bleeding during labor. Œdema of the lower extremities set in at the end of three weeks. Phlegmasia was suspected, but there was no pain, and the swollen limbs, as in the other cases, could be moved. Budin further dwelt on one instance of this puerperal œdema where deep abscess was suspected. Marked œdema developed in the lower part of the abdomen on the left side, and in the upper part of the left thigh in the third week. The patient had suffered from grave septic symptoms during the first few days after labor. Suppuration was suspected, but there was no trace of parametritic exudation, so no operation was performed. The œdema disappeared in a few days, not even an incision had been necessary. Yet the general infection was bad, and the patient, apparently convalescent, died suddenly. Budin concluded with detailing a case where the patient was the wife of a colleague. Œdema in the left groin and thigh occurred some days after the removal of a piece of adherent placenta. The septic symptoms caused by the retained tissue disappeared, yet in a few days the œdema set in. Several colleagues met in consultation, and one, a sur-

geon, insisted that a pelvic abscess existed needing immediate operation. Bouilly, Landouzy, Maygrier, and Budin, who denied that abscess existed, were called in consultation with the surgeon, but operation was declined. A few days later the œdema had vanished and the patient recovered completely. This case occurred in 1892. Boissard, Maygrier, and Bar joined in an instructive discussion which followed the reading of Budin's paper.

HYSTERECTOMY FOR INFECTION FROM PUTRID FETUS.

Demelin and Jeannin (*Bull. de la Soc. d'Obstét. de Paris*), report a case of an eighth labor at term. The patient was thirty-seven years old. The fetus had been dead for some time when extracted, the breech presented, but the neck was torn through during extraction; then the head was delivered with forceps. Much fetid gas and putrid fluid came away; the placenta was decomposed, and after its extraction the uterus was washed out with oxygenated water. On the second day the patient suffered from a rigor, and on the third and fourth more rigors occurred, with bilious vomiting, notwithstanding free curetting after the first attack. Hysterectomy was therefore performed after thorough disinfection of the parts, cleansing of the vagina, and use of the curette. A peritoneal flap was made on the anterior surface of the uterus, which was amputated above the cervix. Catgut ligatures were employed. A strand of gauze was passed from above downwards into the vaginal canal. The gauze was removed on the second day and replaced by a big drainage tube, which did not act well for two days. On the fourth day fever and high pulse abated. On the ninth day the temperature rose; the cause was a stitch abscess in the abdominal wound and a bedsore. Ultimately recovery was perfect.

PUERPERAL PSYCHOSES.

Meyer, of Siemerling's clinic (*Berl. klin. Woch.*, No. 31, 1901), publishes a contribution based on the study of 1104 cases of psychoses in female patients admitted to the psychiatric clinic at Tübingen during the years 1894-1901. A classification of the various forms showed that 11 were cases of melancholia, 4 of periodical melancholia, 3 of circular insanity of the maniacal-melancholic form, 5 of paranoia or chronic delusions, 9 of acute mental confusion (*Verwirrtheit*), 4 of katatonia, 2 of hebephrenia, 2 of epilepsy, and 1 of hysteria. Fifty-one

patients were instances of puerperal and lactational insanity. Puerperal (septic) infection was clearly established in 5 out of the 51 cases. In 5 patients mastitis was present, in 3 pulmonary phthisis was observed, and in 1 typhoid fever. A hereditary neurotic taint was present in 29 out of the 51 patients, and in the majority of the 51 patients the puerperal or lactational period was only regarded as the exciting cause. In 12 of the patients there had been previous severe mental worry and anxiety, 8 had suffered from destitution and were anæmic, and others were women with excessive and frequent confinements—for example, 1 of 15 deliveries in 23 years, after which catatonic melancholia followed. The general conclusion is that there are several forms of the puerperal psychosis, but not a single or all-comprehensive form of "puerperal insanity."

SUPPURATION OF GALL BLADDER IN CHILDBED.

Dolérís (L'Obstétrique) attended a woman who was delivered at the eighth month; the temperature was 102.2°, and on the second day of the puerperium it rose to 105°. Typhoid fever was suspected, but the curette was used, the uterus, however, proving healthy. Next day serum diagnosis seemed to prove that there was typhoid. A few days later a swelling developed over the region of the liver, and suppuration of the gall bladder was diagnosed. Abdominal section was performed and much pus escaped from the gall bladder. The bacillus of Eberth was detected in the bile which escaped from the wound during the first days which followed the operation.

TREATMENT OF UTERINE INVERSION BY ANTERIOR COLPO-HYSTEROTOMY.

Gayet (Lyon Méd.) records the following case: A seamstress, twenty-four years of age, was admitted into hospital with a history of hemorrhage and progressive loss of strength dating from a confinement thirteen months before. On examination a large rounded tumor was found filling the vagina, easily mobile, firm, and elastic in consistence. Above, it was tightly embraced by the cervix, and bimanual examination proved the absence of the uterus from its normal position. The surface of the tumor was red with a few white patches, and the slightest touch caused hemorrhage. Attempts at reposition made for six days were all futile. The patient was therefore anæsthetized, the anterior lip of the cervix seized with a volsella, and a semicircular incision made into the anterior cul-de-sac at its point of junction with the cervix. The bladder was carefully

separated, the peritoneum opened, and the absence of adhesions confirmed. The anterior wall of the uterus was then incised in the median line to the fundus by means of scissors, and the inversion easily reduced. Deep chromic gut sutures and superficial cat-gut were applied, the whole uterine wound closed, and a strip of gauze placed in the vesico-uterine peritoneal pouch. Pyrexia and vomiting occurred for a week after the operation, but convalescence was afterwards rapid. A month after operation the cervix was normal, the anterior cul-de-sac cicatrized, and the uterus almost vertical. The anterior operation is, according to Gayet, far easier than the posterior. This is the fourteenth recorded case of colpo-hysterotomy for inverted uterus, with only one failure and no death. In a young woman, therefore, where taxis has failed, this operation seems indicated rather than hysterectomy.

PAINFUL CONDITIONS MISTAKEN FOR TUBAL PREGNANCY.

Dirner (Centralbl. f. Gynäk.) operated on a primipara, aged twenty-seven, for suspected extra-uterine pregnancy, the patient suffering unbearable pain. He found pregnancy in one horn of a uterus bicornis duplex. The uterine wall seemed very thin and likely to rupture, therefore Dirner performed supravaginal amputation. In a discussion on this case Tauffer related how a pregnant woman, aged thirty-six, suffered from severe pain in the left side of the pelvis. Suddenly an attack of acute anæmia with evidence of peritonitis occurred. Extra-uterine pregnancy with hematoma was suspected. Abdominal section was performed. In the anterior wall was a subserous myoma inflamed, posteriorly a second growth of that class was found projecting from the posterior wall and imbedded in inflammatory exudation. The sudden attack was due to impaction of the posterior growth in the pelvis. It was removed, and the pregnancy continued uninterrupted.

OSTEOMALACIA COMBINED WITH MULTIPLE SARCOMATA AND MULTIPLE FRACTURES.

Schönenberger (Virchow's Archiv) describes the case of a woman, aged thirty-three, who after a third normal pregnancy developed symptoms of osteomalacia, accompanied by multiple fractures of the long bones and the growth of tumors widely distributed over the whole skeleton. The skeleton was exhaustively examined after death. On the one hand, there were diffuse osteomalacic changes throughout, with what has

been described by Recklinghausen as osteitis fibrosa of the marrow and rarefying of the bone structure; on the other hand, multiple giant-celled sarcomata embedded in the fibrosed marrow. Schöenberger discusses the relations of the osteomalacia, the tumors, and the fractures to each other. The osteomalacia was general, and in parts of the skeleton entirely free from the growths. Three possible explanations of the relations of tumors to fractures are considered; on the one hand, Hirschberg in a similar case considered the sarcoma development was secondary to the fractures, and dependent thereon; here, however, sarcomata were found in places without any fractures. Recklinghausen considers the cause of such sarcoma development to be the strain on the bones by the continual dragging of the muscles. In Hirschberg's case fractures were found without sarcomata in the neighborhood, but there were also bone cysts which may account for them. In Schöenberger's case, wherever there were fractures there was sarcomatous tissue, and, although fractures are not uncommon in osteomalacia, the great multiplicity in this case was in all probability largely due to the tumors aiding the osteomalacic process. Histologically the sarcomata were seen to have had origin in the tissue of the marrow. The topographical distribution of the tumors is considered by Schöenberger only explainable on the ground of their development at points where circulatory stasis was most prone to develop.

CEREBRAL HEMORRHAGE AND SOFTENING IN INFANTS.

Porak and Katz (*Ann. de Gynéc. et d'Obstét.*) reported before the Paris Obstetrical and Gynecological Society last spring the case of an infant born spontaneously; it was asphyxiated, but easily and rapidly revived. It weighed 5 3-4 lbs. As it would not take the breast it was fed artificially. On the fifth day the temperature fell to 95°, and there was deep general icterus. On the eighth facial convulsions set in; four days later there was contraction of the left lower extremity, the temperature was 93°, and the weight had fallen to 4 3-4 lbs. On the thirteenth day the infant died. No lesion was detected beyond hemorrhage, limited to the right lateral ventricle. In a second case the infant was a twin, born at the eighth month. On the second day it weighed over 4 1-2 lbs.; its rectal temperature was only a little over 87° (31° C.). It was placed in a couveuse and fed by the breast. After the fourth day the temperature ranged between 96° and 98°. It died on the thirty-seventh day after a sudden increase of weight by 1 2-3 oz. in

twenty-four hours. Hemorrhagic softening of the whole right cerebral hemisphere was detected.

DYSTOCIA FROM SACRAL TUMOR.

Popescul (Centralb. f. Gynäk.) relates a case of transverse presentation with prolapse of the right hand and impacted shoulder, admitted into the Czernowitz Maternity. On abdominal palpation there was doubt about defining the situation of the head, as there was a spherical body in both lateral limits of the uterus. Twin pregnancy was suspected. Turning failed, the neck could not be reached, so evisceration was performed; then Popescul pulled the prolapsed arm at each pain to favor expulsion. This maneuver also failed, then decapitation was effected with ease, and the arm pulled as before. The trunk was then delivered as far as the lower end of the scapulæ, then it stuck fast, but both feet could be drawn out of the vulva. The true nature of the obstruction was now clear, and in passing the hand high up the pelvis was found filled with a large soft tumor connected with the fetal buttocks by a broad insertion. Popescul thrust two fingers into the tumor, which was soft, and broke up much of its interior; then it was easily drawn out. The trunk and decapitated head, without the viscera already removed, weighed 7 3-4 lbs. From the sacral region sprang a tumor, quite double the size of the head; it measured over 15 1-2 in. in circumference, and was covered by the gluteal muscles. Its consistence was like brain matter.

INFANTILE VULVITIS AND GYNATRESIA.

Labusquiere (Ann. de Gynéc. et d'Obstét.) does not entirely concur with Nagel and Pincus, who believe that atresia of the vagina where the uterus is well-developed is as a rule acquired and not congenital. They go further and teach that hematosalpinx, in these cases, is one of the later effects of the inflammatory affection in infancy which caused the atresia. Sängér has shown that hematosalpinx, independently of any evidence of old inflammation lower down the genital tract, may set up local peritonitis caused simply by leakage of blood, free from germs, out of the ostium. Still, the recent researches of Pincus demonstrate on clinical evidence the greater frequency of acquired over congenital atresia of the vulva and vagina alone. Labusquiere notes Pincus' case where a girl of seventeen died of typhoid fever a few hours after a mass of clot had escaped from the vagina. A recto-hymeneal atresia was detected, and a hematosalpinx had ruptured into the perito-

neum. On inquiry the patient's mother admitted that the girl had suffered from scarlatina four years previously, followed by free escape of clots from the vagina. In another case a girl of fifteen apparently menstruated for the first time during scarlatina, but the period did not reappear during convalescence. Pincus found that there was ulceration of the vagina behind the hymen, caused by inflammation during the fever, with adhesion of the opposite sides of the canal. There is evidence, easy to understand after considering the above cases, that infantile vulvitis is a yet more frequent cause of vaginal atresia. Hence, when a female infant is born the vulva should be carefully inspected. When there is suspicious discharge from the maternal genital tract, not only the eyes, but the vulva, of the infant must be treated by prophylactic measures. The physician must be slow to diagnose bloody discharges in little girls as "precocious menstruation," a very rare condition; more likely they represent gonorrheal or leucorrhoeal vulvo-vaginitis. Even in simple leucorrhoea in children a probe should be passed when the discharge is diminishing after treatment, to make sure that adhesions have not formed. Shows of blood in backward young girls suffering from fevers or other acute or chronic infectious disorders must not be hastily reckoned as menstruation; they demand local examination. In any case of complete amenorrhea in a girl of fifteen or sixteen care must be taken to ascertain the previous history. Vulvitis in infancy may be overlooked; none the less it may account for the symptom, while attacks of infectious disorders point also to possible atresia. A history of either of these diseases indicates that the parts must be examined.

INCONTINENCE OF URINE—SUPERNUMERARY URETER.

Wertheim (Centralbl. f. Gynäk.) reports the case of a girl, aged eighteen, subject since birth to spontaneous escape of urine. The cause was detected through the cystoscope, for a duct was found to open into the urethra near the meatus externus on the left side, whilst the normal left ureter opened into the bladder at the usual point. The supernumerary left ureter bore a dilatation above its orifice which projected into the vaginal wall. Wertheim endeavored, by a plastic operation, to establish a communication between this dilatation and the bladder. This attempt failed, and then he dissected up the whole of the lower part of the abnormal ureter, and fixed it into an opening in the bladder made close to the orifice of the normal left ureter. Then the patient could keep the parts dry

for the first time in her life. The orifice of the abnormal ureter made by the second operation could be plainly seen through the cystoscope; it functioned perfectly.

Book Reviews.

THE OPERATIONS OF SURGERY. By W. H. A. JACOBSON, M. Ch. Oxon., F. R. C. S., Surgeon to Guy's Hospital, Consulting Surgeon Royal Hospital for Children and Women, Member Court of Examiners Royal College of Surgeons, etc., and F. J. STEWART, M. S., London, F. R. C. S., Assistant Surgeon Guy's Hospital and to the Hospital for Sick Children, Surgeon in Charge of the Throat Department, Guy's Hospital. Fourth Edition, Revised, Enlarged, and Improved, 550 Illustrations. Two volumes. Vol. I. Operations on the Upper Extremity, Operations on the Head and Neck, Operations on the Thorax. Vol. II. Operations on the Abdomen, Operations on the Lower Extremity, Operations on the Vertebral Column. P. Blakiston's Son & Co., Philadelphia, 1902.

These splendid volumes should receive a right royal welcome, for it is doubtful if there is such a helpful work before the medical public. The subject is "The Operations of Surgery," and still the data drawn from the reports of so many actual cases make it almost a text-book on surgery. The descriptions of operations are very clear, much detail being given to surgical anatomy, the text being much elaborated by paragraphs entitled "Practical Points," "Aids," "Difficulties and Mistakes," "Conditions Justifying such an Operation," etc. The work is profusely illustrated and the authors, more than any of our foreign brethren, give ample space and credit to American surgery, and clearly indicate their appreciation of our surgical progress. The chapters on surgery of the Brain and Nervous System are worthy of a special comment.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Vol. III. *The Eye, Ear, Nose, and Throat.* Edited by CASEY A. WOOD, M. D., ALBERT H. ANDREWS, M. D., and T. MELVILLE HARDIE, M. D. Vol. IV. *Gynecology.* Edited by E. C. DUDLEY, A. M., M. D. Vol. V. *Obstetrics.* Edited by REUBEN PETERSON, M. D., and HENRY F. LEWIS, M. D.

Extended mention as to the excellence of previous volumes of this series has appeared in these columns, and it will be only necessary to add that this work, though intended for general

practitioners, could be read with profit by the specialist as well. The editors are men of first rank and have collected an amazing amount of fresh and interesting material which the publisher offers in very convenient form, at a remarkably low price.

DISEASES OF WOMEN: A MANUAL OF GYNECOLOGY. By F. H. DAVENPORT, A. B., M. D. Fourth Edition, Revised and Enlarged. Lea Bros. & Co., Philadelphia and New York, 1902.

A fourth edition needs but little comment. This book was originally written to fill a certain gap which the author felt had remained open, the countless treatises on gynecology to the contrary. The keynote of this work is its clearness, brevity, and the explanation of many minor points ordinarily omitted from text-books.

MANUAL OF CHILD BED NURSING, with Notes on Infant Feeding. By CHARLES JEWETT, A. M., M. D. Fifth Edition. New York: E. B. Treat & Co.

This book was originally prepared for the training school for nurses at the Long Island College Hospital, and subsequently rewritten and adapted for general use. It is primarily intended for nurses, though the author hopes it may interest mothers as well. It is a book of much value, and physicians will find many valuable hints about obstetric nursing and care of infants. The author's reputation as a worker in the field of obstetrics, as well as his valuable contributions to the literature of the subject, makes this little offering particularly welcome.

ITEMS.

—It is a fact worthy of record that during the year 1901 there were imported into the United States 120,359 cases of G. H. Mumm's Extra Dry, or nearly 60,000 cases more than any other brand. This is certainly a banner performance, and but goes to show how much appreciated the good qualities of Mumm's are in this country. It is certainly a beautiful wine, and well suited for use by the sick.—"Canadian Journal of Medicine and Surgery," March, 1902.

—The best preparation for removing wax from the ears of children is Hydrozone (1 per cent. solution). Drop a few drops in the meatus and next day syringe out the passage with warm water.

THE HOMEOPATHIC JOURNAL OF OBSTETRICS, Gynecology and Pediatrics.

EDITOR, WM. FRANCIS HONAN, M. D.,
Sherman Square Hotel, New York.

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VOL. XXIV.

REMOVAL VERSUS FIXATION OF UTERUS IN PROLAPSE OF THE SECOND AND THIRD DE- GREE.*

BY C. B. KINYON, M. D.

For many centuries the medical profession has been trying to find the best method of treating prolapse of the uterus. The ever-shifting methods of treating this trouble prove that, as yet, no perfect method has been found. It is with a view of aiding, to some degree, in the solution of this problem that I add my mite.

A few general principles are well settled by the profession regarding the exciting and predisposing causes of procidentia. We know that the pelvic floor is an important factor in the support of the uterus. We also know that the various utero-pelvic ligaments are important supports. The chief cause of prolapse is increased size and weight of the uterus. If this increased weight is accompanied by disease, this same disease weakens these supports and the descent is more rapid and extensive. When prolapse is present its existence is so

* Read before American Institute of Homeopathy, June, 1902.

manifest that I need spend no time in diagnosis and symptomatology, but will at once discuss the treatment, and will confine myself to the surgical treatment. As a rule the descent comes on gradually, and very often the anterior vaginal wall and bladder first descend and tend to pull the uterus down. At the first of the descent the uterus simply sags, but after a slight descent it is, as a rule, displaced posteriorly as well. Even in cases of marked ante flexion we usually have retro-displacement with the prolapse and ante flexion. In the majority of the cases of prolapse of the second or third degree the uterus is retroflexed. When the vaginal walls and perineum lose their power of support, either from injury or faulty nerve supply, the broad ligaments are the principal means of support until the uterus begins to tip back. The round ligaments are of no use whatever as supports in prolapse. They simply prevent retro-displacement, hence any operation on these is of little or no value in the cases under consideration.

In cases of greatly elongated cervix or deep laceration of the same, amputation or repair will often do much to make the womb lighter. When the perineum is badly torn its repair will also aid in restoring the parts to normal condition. But after all this has been done, we very often find cases in which the prolapse still continues, and the question arises, How can we best cure such cases? It needs no argument to prove the desirability, and often absolute necessity, that something be done. If nothing is done, we have the following picture before us. As a rule, the greater the degree of prolapse the greater the suffering of the patient. Prolapse of the first degree may not cause much discomfort. In prolapse of the second degree we have added a sense of weight and pressure and often actual pain, or at least almost constant suffering; while the third degree is necessarily very distressing.

A woman with a uterus and vagina hanging between her thighs, with the external os lacerated, everted, eroded, bleeding, and discharging; with the vaginal wall prolapsed and ulcerated in places; with the constant feeling as though she were turning wrong side out, as they frequently express it, surely cannot be in a very comfortable condition. Women in

such a condition do not die. It would really be a blessing in some cases if they could die. Then again, the prolapsed bladder becomes filled with decomposing urine, which in due time produces vesical irritation, and ultimately cystitis. This materially adds to the suffering. Still, again, the fæces accumulate in the large and overdistended rectum leading to rectocele, thereby causing additional suffering. I am now about to make a statement which I appreciate, full well, is as yet an open question. Nevertheless I firmly believe it is the truth, and at no distant day we will all acknowledge its truthfulness. The conditions above described tend to produce malignancy. Irritation has long been acknowledged as an exciting cause of carcinoma, and if the parasitic theory of the origin of carcinoma is proven to be true, which now looks quite probable, the need of a complete removal of the offending organ and the correction of the bladder prolapse, as well as the thorough repair of the perineum, cannot be questioned. We have thus briefly outlined a few of the principles involved in the production of procidentia. I will now say a few words regarding treatment, and will try to confine myself to but two methods of treatment, namely, hysterectomy and ventro-suspension. I use the term ventro-suspension in its limited sense too, for, in my experience and observation, the results of ventro-fixation have been so unsatisfactory that I shall probably never perform it again. It seems to me that it is illogical to immobilize an organ normally as movable as the uterus.

When a patient with procidentia presents herself for restoration to health, the question with which we are face to face is, How should she be treated? For myself, I have substantially the following outline. Here again I appreciate the fact that I am at variance with many of the best men in the medical profession. They do not think it is wise to go into details as to our reasons for adopting any given line of treatment. But as for myself, I first give her to understand that it is not the doctor's province to tell her what she *must* have done, but it is his province to tell her what he thinks it is best for her to have done and give his reasons for such advice, and then she and her friends are to decide whether they will adopt such methods as he advises or some other method. In reach-

ing my conclusions I take into account the following facts. The symptoms and conditions I have above outlined as being present in these cases are only too well known to the patient, and need not be enumerated. If she is possessed of ordinary intelligence it is best to call her attention to the condition of the pelvic floor, to the condition of the uterine ligaments, and to the size, position, and condition of the uterus; explaining to her that if the ligaments have long been overstretched they are likely to be atrophied, or some of the ligaments may be contracted from disease, or inflammatory deposits may immobilize the uterus, to a considerable extent. Having thus outlined the condition, it is well to give her a general idea of the probable results of removal of the uterus or of the operations in vogue for keeping the uterus in place. Let me say, by way of parenthesis, that if you are wise you will never make a positive promise to cure the woman by any of the so-called conservative operations, because you will find it to be true in many cases that, even if you do succeed in keeping the uterus in place, you will not be able to remove the pain. And if the pain and suffering continue, you surely cannot convince the patient that your treatment has been successful.

If the uterus is heavy and the cervix torn, but the different supports are still in fairly good condition, curettage and repair of the cervix and pelvic floor will often do the work. This can only be done in recent cases. At the time the pelvic floor is repaired the cystocele and the rectocele must be attended to. And you may, if you think best, perform ventro-suspension, but not ventro-fixation, as that operation either causes pain or does not hold the parts in place. In other words, in cases where the natural supports are not capable of being restored to their former vigor, and fixation is the only means of support, it does not fulfill the indication. For the dragging is as great as before and oftentimes the pain is worse. What is more, this fixation, sooner or later, through the absorption of the cicatricial tissue, gives way and the patient is in as bad, if not a worse condition than before physically, and mentally a hundredfold worse.

But how different is the picture in cases of removal of the uterus. You are not only getting rid of a useless organ, for nearly all such cases miscarry, even if pregnancy does

occur, but the chief consideration is the fact that you are heading off all likelihood of malignancy, which is surely "a consummation devoutly to be wished." Most laymen and many physicians have an erroneous idea regarding the seriousness of extirpation of the uterus. In cases where the uterus is badly prolapsed, hysterectomy can be much more quickly done, with less shock, and as little fatality as suspension. The fatality from hysterectomy is less than one per cent. In fact, many operators have had hundreds of cases without a single death. If properly done there is no hernia, no cystocele, or no rectocele remaining, and almost no morbidity. Possibly suspension has not quite as large a fatality, but tenfold greater mortality. From forty to fifty per cent. of the cases of so-called conservative operations, the conditions for which these operations are performed recur. And twenty to thirty per cent. of the remainder have many of the old symptoms recur and new ones are added in the course of time. My experience during the last ten years has been such that in all cases where I perform any or all of the operations having for their object the cure of the patient, and still retaining the uterus, I invariably put in this proviso: I am not sure that these operations will be a permanent cure, and if they are not we can perform the radical operation at any time, and I wish to add, with a good degree of emphasis, that sooner or later, in a large percentage of the cases, a radical operation will be called for.

Time will not permit a detailed description of the different so-called conservative operations, or the different methods of performing hysterectomy. In regard to the latter, I merely wish to say that I employ the angiotribe altogether, and find it by far the most satisfactory method of controlling hemorrhage, and the ultimate results are perfect. One point of especial value in the use of the angiotribe I wish to mention. The circle of Byron Robinson, which is nothing more nor less than the anastomosis of the uterine and ovarian arteries, is removed by the angiotribe. Therefore you can, without fear of puncturing a blood vessel, take up more tissue in each parametrium with the needle, thereby being sure of making a firm pelvic floor, which will prevent all likelihood of hernia. In other words, you will not have a prolapse of the vagina following the proper performance of vaginal hysterectomy.

DISEASES OF CHILDREN AND THE RELATION
OF THE PHYSICIAN THERETO.*

BY JOHN PRENTICE RAND, M. D.

The Bureau of Pedology has nothing new or startling to report. For the past year I have tried to keep my eyes open for novelties in this direction, and am sad to confess that, beyond the reiteration of old ideas in twentieth-century terms, there has little been said. I shall not, therefore, attempt anything like the ordinary résumé of the subject, but call your attention, in a brief way, to a few homely thoughts that have been impressed upon me by the teachings of my own experience.

"Whom the gods love die young," was the adage of the ancients; and when we think of the ordeals through which even babies have to pass, we would almost emphasize the expression by saying, "Whom the gods love are never born at all." And this leads me to the thought of the part we as physicians must inevitably play in the great problem of human existence. We are not only "our brother's keeper," but the keeper of his children as well, and stand guardian, in a certain sense, over the very issues of life.

I will not burden you with the trite remark that a man's education or medical treatment should begin with his grandparents, more or less remote. Few of us are ever called to prescribe for people on account of their prospective grandchildren, and rarely, very rarely, are the possibilities of children considered until conception has actually taken place.

In the treatment, then, of our subject, we are forced to draw the line somewhere, and to avoid confusion between the welfare of the child, and especially that of the mother, let us draw that line at the beginning of parturition, when the physician is usually in attendance.

It is a dogma of the Catholic Church that a babe has an inherent right to be born, and that in cases of necessity the life of the mother should be sacrificed to this end. Whether we assent to such an extreme proposition as this or not, we shall at least admit that a child has the right to come into the world

* Sectional address delivered by the Chairman of the Bureau of Pedology before the American Institute of Homeopathy, at Cleveland, June 19, 1902.

without unnecessary interference. To be specific, a child has the right to be born without the aid of instruments, unless required for its own safety or that of the mother. I am not speaking against forceps, when needed, and I am aware that the mother whom we seek to relieve is more apt than the child to suffer from their use; but I do protest against the meddlesome practice of using forceps to save the time of the attendant or give him an excuse for charging an additional fee.

The bony walls of the parturient canal remain practically unchanged whether delivery is accomplished in three hours or three minutes, but the traumatic results upon the flexible cranium of the undeveloped child must be altogether different. Statistics are not readily available upon this point, but were they at hand, I am sure that some cases of epilepsy and mental deficiency could be traced to the use, perhaps to the abuse, of the obstetric forceps.

When a child is born, do not expose him unnecessarily to the sudden change of temperature. The cold air may be a good tonic to excite respiration, but a drop of thirty or forty degrees, to an adult, would be quite a shock, while in the newborn it is quite sufficient to produce "snuffles" and other catarrhal conditions which may be more or less permanent, as has been recently emphasized by Dr. Hooker.

And when you come to tie the cord,—the teachings of some authorities to the contrary notwithstanding (if there are no indications of umbilical hernia present)—apply your ligature close to the navel in almost absolute proximity to the skin; then strip the cord and apply a second ligature about one inch from the first, and cut the cord *outside* of the second ligature.

Professor Burdick used to teach his classes at New York never to tie the cord at all until it had been divided and allowed to bleed for a little, "to relieve the congestion of the liver and prevent the resulting jaundice," after which it was immaterial whether the cord was ligatured or not.

I have never quite forgiven the professor for such instruction. In the early days of my practice I had a very unpleasant experience from a faulty ligature, and only a few years ago I nearly lost a child, five days old, from secondary hemorrhage produced by the sloughing of the cord between the umbilicus and the ligature applied in the ordinary way. This

might perhaps have been prevented by a strictly antiseptic dressing—I do not know—I am sure it would not have happened had the ligature been applied nearer to the body.

As soon as possible after the birth of the child see that the eyes are properly cleansed, but don't imagine, as some teach, that a solution of silver nitrate, which may perhaps be a necessity in dispensary practice, is needful or even desirable among the better class of patients in a rural community. It may not do positive harm, but unless needed it can surely do no good, and students should be taught to discriminate between the cases that do, and those that do not require its use, always remembering, if the case is at all suspicious, to use the antiseptic and give the patient the benefit of the doubt..

Among the various ills of childhood there is none perhaps more common or far-reaching in its results than the lack of normal peristaltic action, known as constipation. How often do we hear mothers affirm that their children are "naturally constipated," when the truth is that the habit has been wholly acquired, and that, too, through the pernicious practices of the mothers themselves.

In many communities it is still the custom to dose a newborn babe with molasses and water to produce an early action of the bowels, and later on, if the child does not have an evacuation every day, to resort to Castoria or some similar preparation to produce it. The ultimate effect of all such treatment is an aggravation of the very condition it is given to relieve, and a child who at the start was only slightly constipated or perhaps not at all, except in the mother's imagination, becomes hopelessly and incurably so ere we are aware.

I will not touch upon that terrible question of infant feeding. One can hardly keep up with the fashion if he tries. Like a very kaleidoscope the preparations of malted milk and albuminous products appear and disappear. And yet in spite of the many "perfect foods" upon the market, I am foolish enough to believe that the old-fashioned way provided by nature is still the best, and that the mother who nurses her child at the breast has gained something that can never be acquired by tending a sterilizer or fussing with patent baby-foods.

What not to do in the abstract is easier perhaps to deter-

mine than what to do in the concrete and individual case. A child ought not to be fed improperly, and in my opinion no child, under six years, should be allowed candies of any kind. Candies impair the digestion, and, if a child has any gastric disturbance or suffers from so-called "worms," predispose to an attack.

I find myself going back to the days of my childhood in the belief in intestinal parasites. Only the past year a little patient of mine got rid of twenty-six stomach worms while taking the "indicated remedy" (santonine ix). The smallest of these was six inches long and the largest sixteen inches. I saw several of the worms myself, and have no reason to doubt the word of the mother as to the number or size of the rest.

If the truth were known, I believe that many, perhaps the majority of children are infested with parasites, but that comparatively few develop reflex symptoms as a result. All cases of adherent prepuce do not produce chorea, nor do all cases of astigmatism produce headache. The nervous susceptibility is quite as much a factor to be taken into consideration as the local irritation, and the wise physician will "take due notice thereof and govern himself accordingly."

But there is a phase of the physician's duties to which I wish especially to call your attention, and that is the part he or she may play in the spread and communication of contagious disease. The public, through ignorance or superstition, generally believe that a physician carries a "charmed life," and does not take or communicate disease, like his less fortunate neighbor. How many times have I been asked, "Why don't you catch this or that contagious disease?" Invariably I reply, "It is because of the rum and tobacco I use." As I have never used either, I try to make my inquisitors understand that there is no medicine or magic about it whatever, and that a physician is just as truly a subject for contagious disease as anyone else.

The public should not be deceived in regard to this matter. We may not contract the so-called "diseases of children" ourselves. Most of us have already had them, and, if not, the chances are that by some freak or idiosyncrasy of nature we are immune, but we are just as likely as anybody else to carry them to others. I never had the scarlet fever in my life, and

I had practiced medicine nine years before I took the mumps, but how many times I have carried the germs of contagious disease around on my clothing, and, like a retail grocer, left them from house to house, I am sure I don't know.

We are still mightily in the dark regarding the *materies morbi* of the so-called "diseases of children." Mumps, measles, and scarlet fever—not one of them has yielded up its secrets. But each is a "specific disease," and each has a germ peculiar to itself. If we only knew what it is we should be much better prepared to meet it. The typhoid germ is carried in water, the tubercle bacillus principally in the air, and both malaria and yellow fever are now believed to be communicated by the bite of the pestiferous mosquito. We have searched heaven and the infernal regions for scapegoats on which to lay the curse of communicating contagious disease. and some of us have been so utterly lacking in chivalry as to charge, whatever we could not otherwise explain, to the defenseless nurse. But let us at least be honest with ourselves! The fault may be with the finder, after all!

Diphtheria is truly contagious, and children, we know, are very susceptible to it. Our municipal authorities do right in subjecting it to the strictest quarantine, and even their best-directed efforts may prove futile. Last year a friend of mine was working in Newark, N. J. While there he had a mild attack of diphtheria. He was not confined to his bed, and, but for the order of the Board of Health, would not have been confined to the house. However, he submitted to the most careful disinfection of all his clothing and remained in quarantine two weeks after his recovery, waiting for the bacteriological test to give a negative result. Three days after his return to work he was summoned to Massachusetts by the critical illness of his wife's grandmother and, though he avoided kissing or caressing his children in any way, in just five days after his arrival his youngest, a babe of two years, came down with diphtheria, and the following week his wife came down with the same disease. Both made beautiful recoveries under antitoxine, and I have only alluded to them to show how our most painstaking efforts to prevent contagion may be vain.

In the Hospital for Contagious Diseases at Worcester is

an anteroom in which the visiting physician removes his outside clothing and robes himself in a sterilized cap and gown before making his daily round at the bedside. When his duties are over he returns to the anteroom, lays aside his hospital dress, and washes his hands and face in an antiseptic solution before leaving the building.

In like manner, I believe, the general practitioner can do something to prevent the dissemination of contagious disease. Sometime the public may demand diphtheria specialists and scarlet-fever specialists, who shall abstain from general practice and confine themselves wholly to this or that disease—but the time is not yet—meanwhile we can do something in the right direction ourselves.

For the past three years it has been my practice to wear a long duster that buttons to the chin while in actual attendance upon a case of diphtheria or scarlet fever. This I leave in the outer hall and put on and remove as I enter and leave the house. When my visits are discontinued I have the garment boiled, ironed, and laid aside for similar occasions in the future. I also carry an extra clinical thermometer, which I leave with the family or nurse, if she does not already have one. The method, I know, is far from being ideal, but it is at least a step in the right direction and easily within the reach of the general practitioner.

My feelings towards mumps and measles are altogether different from what they are towards diphtheria and scarlet fever, and were it not for the disturbance in our public schools I would take both out from under the ban of public surveillance and put them on the "free list."

Almost every person is sure to have measles at some time or other, and after a single attack remains immune. The disease is very mild in children, as compared with adults, and really every child should have them before he grows up or goes away from home.

Regarding mumps, especially in boys, the advantages of an early attack are still more marked. Before puberty the so-called "metastasis" is very rare; after puberty it is very common and frequently destroys the generative functions of one or both testicles. In the absence of any reliable prophylactic, and we have no prophylactic, I believe that the systematic

exposure of school children to both measles and mumps during the long summer vacation would be a truly sanitary measure. While the public is being educated up, or down, to this idea, we may at least quiet any excessive exhibitions of fear regarding them.

I have not time to speak of the great responsibility of the physician in demanding for the rising generation the necessities of proper food, healthful exercise, and abundance of pure air, and I can only touch upon our modern methods of education which stunt and stuff a child, instead of developing and drawing him out. The public-school question is a difficult one to solve from almost any standpoint. I used to think that our terms of schooling were altogether too long, and for many of the pupils I think so still, but when I considered the army of street ruffians who find restraint or wholesome instruction nowhere else, I changed my mind, and am now of the opinion that for the majority of our children twelve months in the year of schooling were none too much. In a word—I would advocate for some communities a continuous school session with plenty of teachers, few books, and only occasional recitations. Make the school do for our sweltering foreign population what the home ought to do, but cannot.

The greatest good for the greatest number is the principle that underlies our democratic form of government. Even in our staid New England villages the children of foreign parentage easily outnumber the natives, while in the cities this percentage is greatly increased. The public school is the only influence capable of transforming this heterogeneous mass into respectable, law-abiding citizens. For children of comfortable surroundings our schools are altogether too long now, but for the degenerate and the outcasts of our great cities, schools of some kind should be maintained throughout the entire year, and I am inclined to think that some form of industrial education would be the best. But my time is more than occupied, and I have only touched upon the borderland of the duties incumbent upon the medical profession towards the rising generation. We stand not alone as custodians of the public health, but guardians of the public morals as well. It is wise for our municipal authorities to subject our public schools to daily medical inspection and exclude therefrom any who are likely to communicate disease. It would be equally wise to provide some form of useful occupation for the hordes of neglected children during the long summer vacations, for bad habits and bad morals are the premonitory symptoms of physical disintegration and incurable disease.

THE CARE OF CHILDREN AS A PREVENTIVE
OF NERVOUS DISORDERS.*

BY N. B. DELAMATER, M. D.

It is a well-established fact now that functional activity is a prominent factor, not only in the development of the various organs, but also of the nerve centers from which they derive the impulse of activity.

The more delicate and minute nerve elements are at birth far from being fully developed as to form, as to chemical action, and consequently as to its physiological function.

These minute fundamental nerve elements are extremely susceptible during what may be termed the formative period, that is, childhood and early adult life.

When these elements are fully formed and have taken on themselves a stable chemical activity, their functional or physiological activity for the future is established.

If the form and shape are perfectly normal throughout the nervous system, and the chemical activity also, the functions will tend to the normal at all times, and it will require strong influence to cause abnormal function.

If the shape is not fully normal throughout the nervous system, some are better developed than others, or there is an irregular chemism, the functions will tend to the abnormal, and with very slight cause, or even without other cause, abnormal function will ensue, and we have some form of nervous disorder.

There is in the tendencies with which human beings are born, and those resulting from environment and training, a great field as yet almost unexplored, for the histologist and the chemist, as well as the physiologist.

What seem to be almost insurmountable obstacles stand in the way. The histologist is probably nearer the solution of his problem than others. The improved technique bids fair to give us in the near future some remarkable results, bids fair to open to us a new book filled with valuable and reliable information that will help the physiologist, the pathologist, and

* Read before American Institute of Homeopathy, June, 1902.

the clinician to the solution of their respective problems. The chemist, however, can see as yet very little light ahead, and yet it is to the chemist that we must look for the greatest discoveries in the practical work of relieving or curing disorders of the nervous system. The problem as to how we can study, can learn the exact chemical changes that take place in the living active nerve tissue, is the greatest obstacle to the full understanding of nervous physiology and pathology to-day. The new chemical methods that are as yet only theories promise much in this direction. Many of you who listen to this paper will see chemical methods developed by which we can determine the exact chemism of the brain in its most delicate workings.

As I said at the beginning of this paper, it is a fact that, during the formative period, all activities have a profound influence in the development of the neuron in all its aspects as well as in its metabolism.

We can use this fact as a help in giving man that resisting force needed to prevent nervous disorders.

By right care and training, not only can the inherited tendencies to malformation, improper chemism, irregular metabolism, and abnormal formation, be in a great measure corrected, but normal tendencies made to take their place.

During this formative period the normal development can be almost assured, or abnormal or irregular development fostered.

How can this be accomplished? There must first be a general uniform development as nearly as may be of every possible faculty. The physical and mental must be proportionately trained. Each child should be studied in all its individualities. The child who is mentally precocious must be retarded in its mental development and encouraged in the physical; while the dull child may have to be pushed mentally and retarded physically. There is no question that present methods of training children must render them susceptible to nervous and mental disorders. There is far too much attention given to the mental development, far too much development of the emotional and too little to the physical.

A child should have air, sunshine, rain, snow, and exercise, and plenty of it.

One grave error in training, to my mind, comes from a mistake in placing the emphasis on care by parents. The tendency seems to be to emphasize constantly the protection of the child from troubles, trials, and temptations. We are apt to forget that no human being can possibly go through life without meeting these. It would seem far wiser to emphasize in the training an inherent power to overcome, to minimize the effects and influences of these trials, troubles, and temptations. A trial is no greater to one person than to another, except as the one is better able to meet and overcome it or combat with it.

Make a confidant and companion of the child at all times. Inspire courage in the child, yes, physical, but far more important, moral courage. Be very careful not to instill any element of fear. If the child has fear, particularly moral fear, at all well developed, it cannot help being deceitful, and also having a constant worry present.

If the child is properly trained it will be practically free from worry. It can hardly contract the worry habit. There is no more direct cause of nervous disorder than worry. A very long paper could be written on the subject of worry as an ætiological factor in this class of cases.

Self-control is another factor of first importance. Develop thorough self-control in every man or woman and the neurologist will not be needed. I do not mean to be understood as saying that there would not be any neurological cases, but that there would be so few of them.

Self-control must be taught from birth. The youngest babe may be taught first, regularity of habit in its little life. It can be taught to eat, go to sleep, waken, look about, and go to sleep again. It need not be taught the necessity of demanding attention from those having it in care every waking minute.

How can self-control be taught? Only by firm, steady, uniform, kindly discipline. No one who does not learn to obey proper authority is capable of self-control. He who has not self-control is unfitted to exercise control over others.

As it gets older it can be taught first by having everything about its life systematic, later to do whatever it does in a systematic way. System is simply one element in self-control.

In demanding obedience of a child it is not essential or right that it should be simple blind unreasoning obedience. If there exist the confidential relations and companionship so essential to the proper care and training between parent and child, everything that is requested or demanded can be explained, or the statement made that it will be explained at a time when able to comprehend. In this way the child can be given a good and sufficient reason for each request or demand.

The child should be told of all the usual temptations that are likely to come, and how best to overcome them. Both physical and moral dangers should be carefully explained and watched for.

The child should fully comprehend that it can talk freely with the parent on any subject, without fear. That the parent is a constant willing companion, always ready and glad to discuss in a kindly, judicious way anything good or bad that may interest the child or that can possibly influence it in any way.

The physical development must be based on the same general principle. Give the child a physical power of resistance to the tests it must undergo.

The diet, clothing, exposures to climatic influences are all to be considered carefully. So much has been written and said on these subjects that it seems entirely unnecessary for me at this time to do more than call attention to the general principle of good, wise care, that will give so healthy a body that ordinary departures from the usual routine will be resisted and cause no trouble.

There should be liberty, but not license in eating, drinking, and exercise.

There can be no doubt that the disorders of the nervous system could be reduced by these simple methods to a minimum. Why? Simply because this line of training and care would assist greatly in establishing correct normal neurons, will tend to produce normal metabolism, normal chemical activity, and as a result normal physiological function.

SHOCK. PROPHYLAXIS AND TREATMENT.*

BY GILBERT FITZ-PATRICK, M. D.

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The prevention of shock during and after operations has received, of late years, considerable attention. Although we are unable with our present knowledge to give the rationale of surgical shock, we have at our command certain means which, if used, will minimize the danger.

In performing operations which involve important organs, the surgeon should resort to prophylactic measures with a view of diminishing the liability to shock.

As long ago as 1880 Stephen Smith administered whisky every hour until slight intoxication was produced before commencing the anæsthetic. He found that patients thus prepared could be anæsthetized without much excitement and were less liable to suffer from shock.

Macdonald of Washington says it is surprising to note the minimum quantity of anæsthetic material necessary to produce surgical tolerance if one-eighth or one-sixth of a grain of morphine be injected hypodermically twenty minutes before administering the anæsthetic.

Senn has been in the habit for years of preparing patients for grave operations by administering two ounces of whisky per stomach or rectum an hour before the time set for the operation, and by injecting one-thirtieth of a grain of strychnin hypodermically a few minutes before anæsthetizing the patient, being satisfied that these prophylactic measures have been of great value in minimizing the danger from the anæsthetic and the shock incident to the operation.

Where chloroform is used,—and I deem it equally as safe when administered by an intelligent and experienced anæsthetist, especially when considering the sequela of ether,—the use of one dram of ethylnitrate to the pound of chloroform sustains the heart, thereby materially reducing the liability to shock from prolonged anæsthesia.

* Read before the Illinois Homeopathic Medical Society, May 13, 1902.

It is also important to prevent loss of heat and favor peripheral circulation by enveloping the body and limbs in warm blankets during the operation, as about ninety per cent. of the heat lost from the body takes place by radiation, conduction, and evaporation from the skin.

Someone has advocated the use of an electric heating pad, placing it beneath the sterilized sheet on the operating table, and kept at a probable temperature of 105° to 115°.

Shock is the prostration of the bodily functions due to lowered blood pressure, brought on by vasomotor paresis of central origin; in other words, shock is a condition, the result of disturbed metabolism.

The vasomotor centers, being stimulated by blood deficient in oxygen, cause contraction of the smaller arteries with increase of arterial tension, and as an immediate consequence the filling of the systemic veins.

The increased arterial tension is followed by inhibition of the action of the heart, and the heart contracting less frequently, and also gradually enfeebled by deficient supply of oxygen, becomes overdistended with blood which it cannot expel.

The ill effects of those conditions are to be looked for partly in the heart, the muscular fibers of which, like those of the urinary bladder or any other hollow muscular organ, may be paralyzed by overstretching, and partly in the venous congestion and consequent interference with the function of the higher nerve-centers.

The passage of non-oxygenated blood through the lungs and its distribution over the body are events incompatible with life for more than a few minutes, the rapidity with which death ensues being due to the effects of non-oxygenized blood on the medulla oblongata.

Metabolism and the consequent heat-producing processes are dependent upon a large and constant supply of oxygen, and when this is interfered with, central stimulation, vasomotor paresis, unequalized circulation, disturbed bodily functions, prostration, and lifelessness known as "shock," rapidly follow.

Someone has suggested time, temperature, degree of anæ-

thesia, and hemorrhage as the principal sources of surgical shock.

If the patient become exsanguinated and die, why call it shock?

If the patient be asphyxiated with chloroform or ether gases, why call it shock?

If the temperature of the living body depends chiefly upon the oxidation of combustible materials in the tissues, why call it shock if the chemical changes be insufficient to generate the required amount of heat to maintain life?

The amount of heat necessary to sustain life depends upon the metabolism of the tissues of the body, and since the metabolic changes are of the nature of oxidation, the use of oxygen therefore is evidently the rational treatment and preventive of shock.

At the Cook County Hospital and Garfield Park Sanitarium oxygen has been used in the treatment of shock within the last year with the most encouraging results.

Where nausea and vomiting are present a few inhalations of oxygen will at once give relief.

The anæsthetic odor of the exhaled breath, which is a constant source of nausea, is eliminated in a few minutes by the use of oxygen.

As soon as the patient is removed from the operating table the oxygen cone is applied to the mouth and nose, and instead of nausea, a weak, imperceptible pulse, with shallow respiration and a state of exhaustion, your patient soon awakens with a good free circulation and the mind as clear as though being aroused from an ordinary sleep.

I have seen the hiccough of shock, which may come on during the administering of the anæsthetic, stop immediately upon three or four inhalations of oxygen.

When the value of oxygen in the treatment of so-called surgical shock is thoroughly understood, all dread of chloroform and ether narcosis will readily disappear, for it recommends itself as the most rational remedy in the treatment of insensibility produced by the inhalation of gases deficient in oxygen.

I cannot emphasize too much the value of oxygen gas in

the treatment of surgical shock and post-operative nausea and vomiting.

The anæsthetic fumes in the lungs, acting through the pneumogastric nerve upon the diaphragm and stomach, keeping up that most harassing complication which is so common and frequently exhausts the surgeon's resources in his endeavor to relieve, are soon dispelled by the use of oxygen.

I have had great opportunities in my work with Dr. W. S. Harvey during the past year to observe and watch these cases and notice how quickly they respond to the oxygen treatment.

The point I wish to make is, that katabolism is so much greater than anabolism during the administration of an anæsthetic that shock is a condition naturally produced by the diminished amount of oxygen received into the system; anabolism depending upon the inhalation of air sufficiently supplied with oxygen. Next in value to the administration of oxygen gas is the external application of dry heat to the body and extremities.

Copious rectal enemata of hot normal salt solution.

Subcutaneous or intravenous infusions of the same solution have been extensively tried in the treatment of shock and with the most gratifying results.

Crile favors the treatment of shock by intravenous injection of warm saline solution, along with a dilute solution of strychnin slowly injected into the rubber tube of the infusion apparatus.

In shock absorption of drugs administered by the stomach or rectum, or even if injected subcutaneously, is always slow, as has been shown by the experiments of Rogers and Brown-Séquard; hence care is necessary to guard against cumulative reaction during the recovery of the patient.

The experiments just alluded to indicate that absorption is retarded, owing to a diminished or suspended interchange between the blood and the tissues, namely, impaired metabolism.

The therapeutic value of strychnin in shock is doubtful. Experiments on animals have demonstrated that this drug cannot be relied upon in shock.

Coutejean explains this by the fact that in animals in a

state of shock artificially produced the spinal cord is seen to be anæmic—not supplied with sufficient blood to convey the remedy to this center of innervation.

As alcoholic stimulants, hot red wine, rum, whisky, or brandy punch deserve the preference; if spirits are used, an ounce should be given every twenty to thirty minutes until reaction is established.

The nitrite of amyl is a powerful heart and vascular stimulant, and will produce an impression in a few moments, thus bridging over the most critical period for the administration of stimulants with a more lasting effect.

In the erethistic stage of shock opiates are indicated, but their use requires caution.

Subcutaneous injections of sterilized camphorated oil can be relied upon as a valuable cardiac stimulant; three or four hypodermic syringefuls administered every fifteen minutes until reaction sets in is the rule to be followed in the use of this drug.

Electric stimulation of the phrenic nerves and artificial respiration, as well as dilatation of the rectal sphincters, are always indicated in desperate cases.

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REMOVAL OF THE UTERUS AND VAGINA FOR
COMPLETE PROLAPSUS—PANHISTEROKOL-
PECTOMY.

BY WM. FRANCIS HONAN, M. D.,

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Complete prolapsus of uterus and vagina is a very distressing condition, and is seen very frequently in large hospital practice, where the patients come from the lower walks of life. Omitting conditions which produce pressure from above, like tumors, ascites, etc., the probable production of excessive degrees of descensus has its origin in parturition. Oftentimes injury to the vaginal outlet does not progress favorably; there is not prompt involution of the uterus, vagina, peritoneum, and utero-sacral ligaments. The uterus remains in the long axis of the vagina, the fundus in the hollow of the sacrum, and the axis of the cervix approximating the direction of the axis of the vaginal outlet. If this continues without correction, and the woman goes on performing arduous labor, with the resulting intra-abdominal strain, the uterus will be forced down into one of three degrees of descensus and prolapsus. The circulation of the pelvis becomes impeded and venous stasis, with its train of evils, follows quickly. The vagina is rolled out, and being deprived of its natural moisture, becomes dry and rough, later eroded. There is apt to be vesical irritation from dragging on the neck of the bladder. The uterus itself is frequently enlarged, unless it has undergone senile atrophy. The cervix is elongated, usually ulcerated, and exudes a corrosive mucus. The surface of the entire tumor, we refer now to the cases of complete prolapsus, may be eroded or even deeply ulcerated at the points of greatest friction. The organ can usually be replaced, and if the perineal laceration is not too extensive, may be held in place more or less successfully by some form of pessary, ranging from Physick's globe to those which are held in place by a strap around the waist. These mechanical supports may answer very well for a time, but the relaxation of the parts continues, and the prolapsus increases in degree until the pa-

tient seeks operative relief. It is not within the scope of this paper to discuss the cases that are classed as belonging to the first and second degrees. Plastic operations on the cervix and on both walls of the vagina, with or without suspensio uteri, are clearly indicated in these cases. The restoration of the injured parts to their normal anatomical and physiological conditions can be done approximately by the operator sufficiently skilled, and who has patience sufficient for this kind of work. In cases further advanced some definite operation for that condition, Emmet's, the Fort, or Dudley's, may be performed with good results. It is to the third or last degree, particularly in old women who not only have passed the menopause, but who have arrived at an age when sexual intercourse is not a factor in their lives. This operation, so far as the writer's knowledge goes, originated with Dr. Geo. M. Edebohls, and was called by him "panhysterokolpectomy" It consists in removing the vaginal tubes entire, then the uterus, and suturing the cavity in such a way as to "columnize" the space occupied by the vagina and thus obliterate it. The results are apparently so satisfactory that two cases are offered for consideration.

Case I. Jane C., æt. sixty-eight. Had complete prolapsus of uterus. Vaginal hysterectomy had been performed two years before. In some respects the condition was worse than before, for it was impossible to hold up the prolapsed vaginal walls, which were so elongated as to hang down fully eight inches between the thighs. She was very anxious to have relief. Patient, having been anæsthetized, was placed in the dorsal position, as for any vaginal operation, and vagina drawn out taut. A small incision was made in the apex, the sides of the incision being grasped with T-forceps; the vagina was rapidly peeled off the bladder, rectum and sides of the pelvis with the finger. Just within the outlet a circular incision was made which detached the distal extremity of the tube. A small opening was accidentally made into the cavity of the rectum, but this was thoroughly irrigated and closed with fine silk sutures; a full curved needle was now threaded with No. 2 catgut, vaginal retractors inserted, and an enormous opening disclosed. At

the uppermost extremity a suture was inserted which ran around the entire circumference of the proximal end, this, when drawn taut and tied, closed off the peritoneal cavity. The needle was then reinserted about one-half inch further forward and the circumference of the cavity again encircled, and so continued until the space was entirely obliterated and the incision just within the outlet of the vagina was reached. A final knot was made here, and the vaginal flaps on the outside closed with silkworm gut sutures. This effectually obliterated the vaginal canal. The patient made an uneventful recovery and is in every way pleased with the result.

Case II. Mrs. S., æt. sixty-seven. Complete prolapsus of uterus and vagina. This was a typical case and had reached the stage when the ball pessary had failed to relieve. The operation was here performed strictly according to Edebohls. The uterus was replaced and an incision made just within the outlet of the vagina. The edges of a portion of the incision, just under the urethra, were steadied with T-forceps and the handle of a scalpel used to turn up the vaginal mucous membrane. When a space sufficient to introduce the finger was obtained, the separation was rapidly and safely done with that useful instrument. When the cervical attachment was reached, the uterus was removed in the usual way, as is practiced when that organ is removed by the vaginal route. Owing to the relaxation of the broad ligaments both the uterine and ovarian arteries were easily secured and ligated. The ligaments themselves were ligated and allowed to return to the peritoneal cavity. In this case a long fine chromic gut suture was used to "columnize" the vaginal space, finishing as in the previous case with silkworm gut for the outside vaginal flaps.

In some respects this operation seems formidable, particularly in patients advanced in years, and Edebohls himself suggests that "none but those skilled in plastic surgical work should attempt it." That might be said of almost any operation; a simple perineorrhaphy and trachelorrhaphy, important as they are, are usually considered lightly and very often very badly done by surgeons who are considered accomplished. The operation above described is certainly not devoid of dan-

ger. Even working as rapidly as is consistent with safety, the operation is much longer than a perineorrhaphy. There is the prolonged effect of an anæsthetic on a woman over sixty-five years of age; there is also great danger of wounding bladder, or rectum, or both, and it certainly should not be considered in the case of a married couple of whatever age without thorough understanding of what is contemplated in the operation. It certainly is safer, shorter, and more certain to produce the desired result than a series of plastic operations with a super-added suspensio uteri. The operation above described is almost certain to be followed by relief, for the offending structures are removed, opposition is established between anterior surface of rectum and base of the bladder, making conditions resembling those found in the male pelvis.



CONSERVATISM IN MODERN GYNECOLOGICAL SURGERY.*

BY H. F. BIGGAR, M. D., LL. D.

Honoring the observance of custom, it becomes my duty as Chairman of this Section to review the recent advances in gynecological practice. I do this with the double purpose of bringing them freshly to your minds, and being so recalled to make more pointed some inferences and conclusions warranted by the results of practice.

Some of the more important events are the following:

(a) Beatson's Operation.—The removal of tubes and ovaries for recurrent mammary carcinoma.*

Theoretically its basis must rest upon some structural relation, or trophic connection, or upon the fact that the several organs concerned in reproduction are subject to modification, each by another, pathologically as well as physiologically. None of these bases are as yet very clearly defined in that direction, and further investigation is called for. This fact also must not be lost sight of, nor is it by any means new,

* Read before the American Institute of Homeopathy, June, 1902.

† Beatson's operation is restricted to recurrent mammary cancer of the breast only, and is of no value when the recurrence involves the axillary glands alone.

that surgical procedures at distant points are known to arrest pathological processes of quite different kind at other points. How far the principle employed is common to both, also remains to be demonstrated. Practically, however, there have been many favorable reports upon it, although the time is yet too short to prove it to be a reliably efficient measure.

(b) Ovarian Implantation.—This operation is meeting with some interesting results, not the least of which are those upon maternity. It is on record that in a number of instances pregnancy has occurred after double ovariectomy, when, it is believed, that a small amount of ovarian tissue has been left upon the distal side of the ligature. On like grounds it may be supposed to be possible to preserve the power of impregnation, provided that the graft is human and is properly located. But the most important results to be expected from procedure is that of prevention or amelioration of the stormy symptoms so sure to follow the artificially induced menopause resulting from removal of both ovaries. There is, therefore, beyond the question of possible impregnation, that of the preservation of the ovarian function and its influence upon uterine life, the fact of which appears to be a constant result. An enthusiastic gynecologist says: "the best result in ovarian grafting in my experience is the avoidance of the menopause. A summing up of the testimony of experimenters seems to indicate that a properly transplanted ovary may continue to perform its full normal function, and that we may not only expect to prevent the symptoms of the menopause after the patient's ovaries have been removed, but we may reasonably expect a pregnancy in a certain percentage of cases." It is to be pointed out, however, as has already been done by Professor Clark of the University of Pennsylvania, that some extraordinary social complications might arise on account of it.*

(c) Cæsarean Section.—In the better practice this is being

* Dr. A. Palmer Dudley, to whom we are mostly indebted for reliable statistics in respect to ovarian implantations, says that in those cases which he was able to keep trace of 148 in number, 138 are reported as cured and 10 as improved. From this 148 he is able to report 23 cases of pregnancy with delivery at full term, and 5 cases of miscarriage, in all 28 pregnancies, an average of about one in every five and a half cases.

substituted for symphyseotomy in cases of craniotomy, eclampsia, and placenta prævia centrally located. The better command of parts under the hand of the operator, the minimum of injury to tissues, and the greater conservatism of the whole procedure are sufficient reasons for the change.

(d) Baldy's operation for retrodisplacement demands our attention. With many Alexander's operation, hysterorrhaphy, and like procedures have been unsatisfactory. They have always more or less been associated with disadvantages, but, though disadvantages, have been accepted because we knew nothing better to substitute.

The operation consists of serving the round ligaments close to their attachments to the uterus, puncturing the broad ligament, through which they are pulled, and the cut ends sutured to the cornua of the uterus on the posterior surface of the uterus, directly back of the vaginal point of attachment of the normally attached round ligament.

Perhaps a better operation than that of Dr. Clarence Webster, although the operation of Webster differs only in this, that in place of suturing the ends of the ligaments to the cornua, he sutures the ends together and fastens the ligaments thus united to the posterior surface of the uterus.

(e) The abdominal or vaginal route?—It is the same much-discussed question, but with decided tendency to fix upon the abdominal as the safest except in view of special conditions; as in pyosalpinx of one or both tubes, and in some cases of hysterectomy.

(f) Appendicitis.—There is decidedly less cutting. Statistics show that without operative interference eighty per cent. get well, while only twenty per cent. die. It may be expected, of course, that the latter number may be reduced by surgical measures, but the comparative mortality among these must be great.

(g) The operation of anastomosing of the portal veins with the systemic veins by suturing the omentum to the parietal peritoneum. Though not strictly germane to gynecological surgery, yet I cannot forbear to allude to this operation, which has brought such relief and prolonged the lives of those who have suffered from ascites, the result of cirrhosis of the liver.

It is not claimed that the cirrhotic condition is cured, but it is certain that in most instances the ascites and other annoying symptoms may be greatly, if not permanently, relieved thereby.

Conservatism is the striking feature in all these improved methods; conservatism in technique, in instrumentation, in lines of limitation between operable and inoperable cases, in ante- post-operative management, and in the admission of methods to the armamentarium of bloodless means. All to conserve the strength and safety and recovery of the patient, and not to kindle the growing or enhance an established surgical reputation. A retrospect of the last decade, and especially of the last twelve months, shows a decided tendency to conservatism, particularly in surgical-gynecological work, as was predicted by the conscientious surgeon and the physician-surgeon. Does it not require "a higher order of ability, and is it not a truer and nobler triumph of our art, to save an organ or part of an organ, than to destroy it by sacrificial surgery?"

It has been the belief of too many surgeon-gynecologists that the removal of the diseased organ restores to health: but continued invalidism after such removal, which may be even worse than before, brings to the front some very serious propositions the answers to which are convincing enough that such measures are but too often dealing merely with results of disease, while the causes remain active as before. Some of us are, therefore, convinced that such removable results are often mere passive elements in a complexity of far wider range; or, indeed, they may be of themselves conservative elements of the most patent character. The knife cannot be the *materia medica*; its diagnostic powers do not reach beyond its point; cure begins where its power ends. We must not be unmindful that conservative surgery includes any or all methods of treatment that may restore to health, with always the more radical measure at hand, but it does not lead. Nor must we forget that whether the knife leads or follows after, carefully chosen medical treatment the latter has frequently completely restored the health when surgical measures have failed to benefit. These are not irresponsible statements—but

time and place precludes that, but can be and have been verified over and over by many of our representative gynecologists. Restoration to health without the use of the knife is of itself proof of profound knowledge of disease; but to know when *not* to use it, and *why* not, and that there are other and better means, is proof of profounder knowledge still.

The following, quoted from an eminent writer, is a true and too frequent verdict to be written upon indiscriminate surgical practice: "That the result of the operation was not the success expected by the patient and anticipated by the operator was due neither to lack of skill on the part of the surgeon nor to any fault of the patient; but the fact remains that the sufferer is far from being cured."

Now let us consider why it is that there is so much morbidity, or failure to recover, following surgical operations?

(a) There is not a thorough diagnosis of the case, nor are the cause and course of the disease ascertained.

(b) The therapeutic nihilism so prevalent among younger surgeons, as well as pro-surgical gynecologists.†

(c) The faults of patients, some of whom will not accept advice because they will not take the time and submit to the self-denials necessary to a cure. This is too often true of the patient who declines to be restricted in her fashionable social functions, who will not; and in the poor woman whose domestic and marital duties make such demands upon her strength, who cannot. Both have been promised relief by the surgeon-gynecologist, and both have believed and both have failed.

It seems needless to specify among the large number of procedures, further than to illustrate the true position of affairs, which the following may do: "It has been the almost universal custom among the gynecologists to remove all diseased tubes, whether they contain accumulations of pus from gonorrhea, puerperal infection, or otherwise, or were thickened and bound down by adhesions. This statement, from an experienced operator, covering so wide a ground, followed by severe strictures upon indiscriminating operations,

* One of the ablest surgeons of the old school says that the perfected operative treatment of modern surgery has taken the place of all treatment both with drugs and electricity.

should teach the less experienced a valuable practical lesson. Many operators now realize that the results of certain operations are disappointing, and the relief of subjective symptoms is far from satisfactory. Fritsch declares that fully thirty-three per cent. of patients upon whom laparotomy has been performed for the relief of pyosalpinx were not in the least benefited, and that it was the most unsatisfactory operation which the modern gynecologist performed.

"These unsatisfactory results have led the French and some Americans to adopt the still more radical operation of removing the uterus as well as the appendages. But in this also it has been found that not only do these patients often suffer from a return of their old symptoms after operations, but, if at the same time the ovaries were removed, distressing symptoms of the artificially induced menopause—which invariably runs a stormy course, lasting from one to several years—become prominent, the whole constituting a picture from which any operator may well draw back, but which is unfortunately too familiar."

The same is true of the removal of ovaries for certain forms of disease not necessary to enumerate, and of many curettages, and of plastic work upon the cervix and pelvic floor.*

It must not be understood that I do not approve of nor make these operations. Among them all I have done many that have resulted most favorably. But there can be no doubt that we have been too radical in condemning such organs to removal, and have given too much assurance that many of our plastic operations were all that were required to insure return to complete and perfect health.

Therefore we may add yet stronger emphasis to the fact that, the work well done, post-operative morbidity is proof positive that the removal of results of disease does not remove the cause.

What courses are open for our guidance and protection?

* Many of us have unnecessarily and unfortunately removed ovaries for cystic degeneration, when if we had been conservative these organs could have been saved, for statistics show that in 97 cases of cystic degeneration of the ovaries treated conservatively by resection and ignipuncture 10 pregnancies followed.

How may operations, at least doubtful ones, be averted? or done, how may succeeding morbidity be lessened?

(a) Before operation, become thoroughly acquainted with the character and tendency of the disease, with the history of the patient and family, especially with reference to hereditary and acquired predispositions.

(b) If any doubt exists as to perfect convalescence after operation, first make use of all approved remedial and adjuvant means before resorting to it.

(c) At no time let it be forgotten that many, after such operations, indeed on account of them, are now suffering not only from hopeless invalidism, but from melancholia and mental disturbances, and even permanent insanity.

The preparation of the patient may be all that could be desired, the operation skillfully and brilliantly performed, the technique and links in the antiseptic chain perfect in detail, the convalescence uninterrupted, and it goes on record that the patient was discharged from the hospital cured, and so regarded as a triumph for modern surgery. But wait a little; the patient returns for advice upon her condition; she has not improved; in fact is worse than before the operation. This is a truthful picture, and has doubtless been the experience of all of us; but none the less does it place us in an uncomfortable position, and all the more do we feel that it is imperative that we so act as to prevent such occurrences or make them more and more infrequent or remote.

Do we not too often regard organs as pathologically changed to a serious extent, when the conditions are no more than congestion and infiltration of their walls? Too often regard tubes containing pus, and ovaries the seat of abscess, with adhesions, and therefore indicating radical measures, as being the seats of irrecoverable disease, when in reality there are no structural changes, and therefore the case is within the scope of medicinal or other than surgical treatment? Have we not been too ready to condemn these appendages? Suppose that we do find pus in the tubes and ovaries; have we so soon forgotten the surgical principle that nature circumscribes these infective foci, that their virulence dies out, and they thus become benign and harmless? An exception to this is found

in accumulations from gonorrheal infection, which is both virulent and specific. But in this exceptional case why is so much reliance placed upon early and absolute removal, when it is in fact well known that it is practically impossible to include all invaded tissues? Is it again forgotten that pathology teaches that one of the channels for the distribution of gonococci to tubes and ovaries is through the lymphatics of the broad ligaments, and these through absorption from the vaginal walls? What, then, is the possible gain in removal of tubes and ovaries, leaving still infected tissue behind? This much may be taken for granted at the outset, and characterizes every case of length of standing: that infection of lymphatic glands has proceeded further than may be reached by the surgeon's knife. This is the point from which every surgical judgment in these cases should invariably proceed. Here may be stated as a general commentary on the whole subject, the remark of Zweifel that only four per cent. of attacks of pelvic inflammation ever reach the stage of suppuration.

I have already referred incidentally to constitutional conditions as causes of many uterine disorders, of their facility in assuming controlling positions in a complex of both local and general symptoms, and now I desire to add especial emphasis to their responsibility as stumbling-blocks in the way of the recoveries we have so confidently hoped for and predicted. The assertion is ventured that in large numbers of cases of so-called recurrence of pelvic disease, or its so-called transference to contiguous organs, or mere continued invalidism, all presenting themselves after apparently well-indicated surgical procedures, are local expressions of constitutional disease; that is, some systemic function, as that of metabolism, the blood-making or tissue transforming powers, may degrade or destroy the equilibrium of the whole, until in itself it is cured, all means for local cure to the contrary notwithstanding.

There is yet another disease to which I ask your attention—fibroid tumors of the uterus, or fibrosis, more properly speaking, and the operations upon them, myomectomy and hysteromyomectomy. The operations are yet young, too young to have fixed upon them any very definable limitations of conser-

vative surgery. Fibrosis itself is yet young in a fully realized constitutional sense, too young to have definitely fixed upon it the responsibility for characteristic recurrences and repeated operations so frequent and so discouraging to surgeons. Let the pathologist of to-day point out the way very precisely in the characteristic cell-degenerations of the disease, in the ease with which it disseminates itself among organs of the body other than the uterus, and in its metastatic tendency; so that in given cases apparent radicalism is really the most careful conservatism. Fibrosis is not, *per se*, a disease of the uterus. It is a constitutional, or nutritional, disease with pelvic localization. Constitutional limitations, therefore, in everything except the mechanical sense, become the limitations of conservative surgical procedures upon it.

It would seem, then, no longer doubtful—and why not doubtful?—that the removal of one or more fibroid tumors from the uterus may be, is likely to be, followed by the development of others which may be of more virulent or semi-malignant character than before. A painstaking and scientific gynecologist says, after examining microscopically several hundred specimens, that “myomectomy should be an exceptional operation, for the reason that in a great majority of cases these tumors were extraordinarily multiple in their development, some showing fifty or even one hundred different centers of development.” My own experience coincides with this statement.

Another writer states that “after careful and long continued microscopical study of sections of fibroid uteri, it has been clearly demonstrated that where there is a myo-fibroma not only is the uterus diseased, but that it is this disease that produces the fibroid growths. The tissues of the uterus are first reduced to granular or medullary tissue, and from this fibroid tumors are developed. A new growth can only come by some tissue being reduced to its primal elements. In every case examined the cervix has been most profoundly diseased, and has shown most advanced pathological changes.”

Now, in view of all of the foregoing considerations, can we do otherwise than insist that the treatment of every case of fibroid disease must be undertaken first from the constitutional

point of view, and that every instance of surgical intervention be undertaken upon the same and therefore conservative basis?

Let us now assume the necessity for operative measures. When is it best to operate? Among the most eminent there are wide differences of opinion. Some maintain that at the onset of the growth, or on its discovery, is better, because of less risk, and before the system is less impaired by its presence and weight. Others advise postponement until resulting constitutional disturbances are in evidence, and say that the risks of operation are no greater at this time than earlier. In reaching conclusions it is not to be forgotten that cures have been effected by medicines and adjuvantia, by electrolysis, that such growths have spontaneously disappeared, and that some have remained *in situ*, latent, without inconvenience, to old age, death occurring from other causes. Except in exigencies, therefore, the less radical measures must have been given fair trial. However, it is generally conceded that there are conditions that demand immediate removal surgically, and are as follows:

- (a) Degeneration is suspected.
- (b) Sudden development at climacterium.
- (c) When so large as to threaten life by pressure on abdominal organs and diaphragm.
- (d) When anuria from pressure on the ureters, hydro-ureter, hydronephrosis, pyelonephrosis, serious neuralgia, dysuria, ischuria paradoxa, and coprostasis exist.
- (e) Menorrhagia and metrorrhagia.
- (f) Obstacles to child-bearing.

I cannot at this time enter fully upon a discussion of the relative merits of the two operations, myomectomy and hysteromyomectomy. This, in general, is my position, that up to and after the child-bearing age, all things equal, diathesis, clinical history, and local conditions coinciding, the latter is in my judgment the preferable operation. True, it is classed as radical, but, the disease as a whole taken into account, it undoubtedly is the more conservative and therefore to be preferred.

The following brief differentiations may throw some light upon the matter of choice:

(a) There is no operation within the whole domain of surgery that requires more careful deliberation than myomectomy, because of the great number of possible complications and relative issues connected with it.

(b) There is greater comparative risk from sepsis in myomectomy from mere handling of the tissues which have to be dropped back into the abdomen.

(c) Hemorrhage in myomectomy is more difficult to control. In hysteromyomectomy this is practically assured when the four main arteries are secured, which is more readily and safely accomplished.

(d) Myomectomy is more dangerous than hysteromyomectomy because it demands greater care in each step of the technique. Inadvertencies may prove fatal.

(e) And it is more dangerous because in each case both it and the operation must be strictly individualized. In hysteromyomectomy the operation has assumed more or less of a routine character.

Myomectomy is an operation of election within definable limits. It conserves a natural function, and guarantees the possibility of conception and motherhood, which have followed the operation, all of which should give it a high standing in the estimation of surgeon-gynecologists. But when the uterine tissues have the ends of fibrosis scattered through them, when the constitutional predisposition is so clearly marked as to render extension of the disease a foregone conclusion, I cannot believe it to be an admissible operation because of the double certainty of recurrence, and because, if thoroughly done, the walls of the uterus must be so weakened that pregnancy would increase the liability to rupture. If not thoroughly done it sinks to the level of a mere palliative, certain to be repeated, or worse, proves to be a spur to more rapid development, to increased virulence, or even malignancy.

However, admittedly it may be resorted to:

(a) When the level of the myomatous uterus is below the umbilicus.

(b) When assurance is felt that after the removal of the tumor or tumors the uterus will be restored to a healthful state.

(c) When the patient is under thirty-seven years of age, or during the child-bearing period.

Hystero-myomectomy is preferable:

(a) When the patient is past the child-bearing age.

(b) When disease of tubes or ovaries makes conservative treatment of the uterus useless.

(c) When exhaustion from hemorrhage makes it imperative that the operation be completed as soon as possible.

Regarding treatment other than surgical, much might be profitably said, but we must be content with a few hints. After a quarter of a century, with a wide field of observation and large experience, I am convinced that where certain characteristics are presented, proper internal medication, ozone and other vaginal sprays, medicated tampons, and intelligent and skillful application of electrolysis, have not only relieved suffering and arrested the development of growths, but in some instances have dispersed them or promoted their absorption.

I would especially note the value of the concurrent local and internal use of a carefully chosen constitutional remedy.

The following have proved beneficial and are confidently recommended: Ergot, ustilago, calcarea iod., and hydrastis.

These remedies are worthy of special notice because of their specific character, and their action from both directions, local and general.

In particular, the physiological action of ergot should be kept up until the arterials are sufficiently contracted and the muscular coats so shortened as to impair the nutrition of the tumor, when it dies of starvation. Ustilago, a drug of much the same character, may be used in the same manner. Iodide of lime is indicated in all phases and conditions on account of its powerful effect upon nutrition. Hydrastis is the tonic *par excellence*.

The Kingmore, 260 Euclid Avenue.

SPECIAL AFFINITY OF PENNYROYAL FOR THE
FEMALE GENERATIVE ORGANS.

BY D. C. KLINE, M. D.

At close of second stage of labor in a primipara, unmarried, October 13, 1901, as babe and amniotic fluid were expelled, a very marked odor of pennyroyal was distinctly noticeable. I looked about to see from whence it came, and the nurse asked "What is that odor?" I soon found it emanated from the babe and fluids. Upon close questioning the woman admitted having taken pennyroyal tea during the early months of pregnancy; the odor was so marked that it penetrated to adjacent rooms of the hospital, and for three days following, when the babe was given its oil bath, the odor of pennyroyal was distinctly noticeable.

January 5, 1902, while attending Mrs. B., private patient in hospital, I unwittingly related my above experience to the husband, but, lo! when babe was born a similar odor was noticeable, though not so marked. The nurse present (not being the one in former case) remarked, "Doctor, do you notice that odor? Smells like pennyroyal." A sharp look quieted her, and while reprimanding myself for having related the former experience to the husband, I was vividly reminded of the saying that, "The one who does not talk never gets into trouble," and "The fish that does not open its mouth never gets caught."



THE OBSTETRICIAN AS A PREVENTIVE GYNE-
COLOGIST.*

BY JOHN C. KING, M. D.

The major portion of my gynecological cases have been sequelæ of childbirth. A qualified obstetrician may be termed a prophylactic gynecologist. Permit me to attract your attention to but one aspect of prophylaxis, to wit: that of aseptic obstetrics. It is unnecessary to enumerate the secondary or

* Read before the Southern California Medical Society.

gynecologic results of sepsis. We are familiar with them. Nor is it essential to urge upon each other the practice of asepsis. We all attempt it—or pretend to. My point is the prevention of septic cases for which we are not personally responsible; cases where the infection is conveyed by the hands of the patient, by her attendants, or by her environment. Complete preparation for confinement, a trained nurse, and perfectly hygienic surroundings, constitute a rare combination. The average case is nursed by some woman unfamiliar with the rules of asepsis, while the patient herself has no conception of their importance. The efforts of the physician are neutralized by the carelessness of others. I remember one death from puerperal disease that injured my business, in years gone by, more than all my mistakes and failures combined. The nurse gave the patient, contrary to explicit orders, a douche with a syringe which she had been using for the relief of her own gonorrhea. It was more than a year afterward before I learned all the facts, through the aid of a brother physician. The case occurred in a wealthy family, but wealth is no bar to ignorance. It is foolish for us to censure people for being ignorant along these lines; knowledge can only be imparted by ourselves to the general public. If the people continue uninformed we are responsible. In order to do my humble share as an educator I had printed a circular containing instructions for women who wished to engage me as obstetrician. This circular aims to define sepsis, to point out some common media of infection, to both warn and encourage the patient, and to teach her what to demand from the nurse in this connection. It then gives directions for preparation of aseptic pads, nail brush, catheter, bed-pan, syringe, wash basins, bed., etc., together with definite instruction how to disinfect the hands of nurse, body of patient, etc.

However, the results have been excellent. So far it has banished sepsis from my practice, except in consultation work. I have used it about six years. Women from many parts of Southern California have written to me for it. I believe it has had, in a small way, a decided educational influence. In a few cases this influence has been weakened by the ridicule of thoughtless colleagues. I am so impressed with the good

that can be accomplished by this means that I strongly urge its more general adoption. A neatly printed folder or pamphlet, of convenient size, could be prepared containing terse yet complete instruction for the puerperal woman and her nurse. If such a pamphlet were habitually distributed by the profession, the woman of Southern California would acquire a very respectable knowledge of obstetric cleanliness. We differ in the minutiae of our technical methods, but we are all governed by the same principle. The circular could state the principle, could describe one established method under each rubric, as, for instance, the preparation and use of the vulvar pad, and could finally state that the attending physician might wish to give especial orders adapted to individual cases. Some may consider this proposition puerile and quite unworthy a trial. In many wealthy families, where well-trained obstetric nurses take charge of both preparation and procedure, such information is non-essential. To the average child-bearing woman and to the average neighbor who will nurse her, it would prove an important blessing. From experience, I know this plan will save the doctor a vast amount of trouble.



THE AMERICAN INSTITUTE.*

PELVIC PAIN.

Dr. C. E. Walton said that pain is the compass of the physician and surgeon pointing to a nerve in distress. It is a signal of disease to the patient. It is very important to understand these signals. The click of the telegrapher's instruments is without value unless accompanied by the code. He said his subject embraced the space below the brim of the pelvis; by drawing a line from one iliac crest to the other, and another line from the lowest border of each tuber ischii, then the plane in which these two lines lie will mark the limits of the study. He then described the organs found in this basin.

The throbbing pain along the sides of the tuber ischii comes from an abscess in that region. Fissures in the rectum are

* Extracts from stenographic notes, Cleveland, 1902.

indicated by lancinating pains upon defecation. Rectal soreness, with or without hemorrhage, denotes a pile that the most astute financier never strives to accumulate. The spasmodic clutch of a red-hot pain shows that the mucous membrane of a hollow organ is resenting the carelessness of sitting on a cold surface, even though it be the front doorstep of one's best girl. Cupid and dysentery are not bosom friends.

The painful closure of the vulvar orifice indicates vaginismus. A sense of weight with pain in the back reminds us of a uterus discontented with its normal surroundings striving to demonstrate that a descensus uteri and descensus Averni are equally facile.

These and other prominent indications were given, the author said, to emphasize the four cases which he proceeded to relate.

A lady in excellent health fell backward over a carriage block, breaking her wrist and severely hurting her back. Fracture healed in the usual time. Six weeks later was taken with a violent pain in the right groin. Convalescent in a week. Gradually pain returned, with chilliness, daily fever, and sweat. Thought of pus and wondered where. Five days later found great tenderness beneath saphenous opening. Thought of concealed omental hernia. Some nine days later, at third visit, found lumbar tenderness; pus symptoms still predominant. Extension of thigh impossible on account of pain. Incision evacuated about two ounces of pus. In about two days after, died. No post-mortem. There was likely a retro-peritoneal abscess in addition to the one found. Its subsequent rupture terminated the case.

The second case was that of a lady who had slipped upon an icy pavement and struck upon her back and hips. Thought she had floating kidney from appearance of tumor and pain. No operation permitted. Died. Post-mortem revealed a normal abdominal cavity. Stripping up the peritoneum from the iliac fossa, a large pus cavity was exposed and three inches of crest of ilium found to be eroded, due, probably, to direct injury at time of fall, or subsequent inflammation, or both. An operation would probably have saved this life.

The third case was that of an old gentleman taken with a

severe pain in right iliac region, which soon spread to abdomen and caused a profound shock. Fecal vomiting indicated intestinal obstruction, but no tumor could be found. Post-mortem showed a small lateral concealed hernia, barely pinched by the internal ring. If so little tissue change caused enough of shock to kill the patient, what would an operation have done? And yet that would have given the old gentleman the only chance for his life.

The fourth case was that of a patient chronically ill with long-lasting pelvic pain. When patient was brought in under chloroform tumor had disappeared. In view of the long and continuous pain it was suggested by his audience that an incision would be justifiable. It was made and ovaries and tubes found to be in such a diseased condition that there was plenty of work to be done. Pelvic pain and skillful operation saved that patient's life.

SALPINGITIS.

Dr. J. J. Thompson of Chicago said that doubtless those whose private practice or clinical work is largely among prostitutes suffering from frequent attacks of gonorrhea, or among women who are the subject of frequent abortions, find a much larger percentage of tubal inflammation than those whose practice is among the middle classes, where the above conditions are comparatively unknown, gonorrhea and instrumental infection being largely responsible for the greatest percentage of salpingitis. Pelvic peritonitis usually accompanies salpingitis to a greater or less extent. This inflammation may end in abscess or in resolution. Salpingitis is in nearly every case an extension of the inflammation from the uterus. The infection may be carried direct from the uterus through the ostium internum into the tube; or it may be taken up by the lymphatics and the broad ligaments to the tube. The former condition is most often the result of gonorrhea; the latter that of instrumental infection.

In one case of tubercular salpingitis the patient, although thirty years of age, never had menstruated. Both tubes were removed and one ovary. Strange to say the patient soon be-

gan to menstruate regularly, and her health has remained good ever since.

Salpingitis is essentially a disease of active menstrual life. First, it is found most often in prostitutes, and in young married women whose husbands have been indiscreet before or after marriage. Second, it complicates cellulitis following miscarriage or abortion. Most cases of purulent salpingitis are of gonorrheal origin. Catarrhal salpingitis may be brought on by exposure to cold, excessive and violent coitus, or by violent exercise during or just before menstruation. Instrumentation is a frequent cause. Sharp curette is another cause. The disease more often attacks the left side of the uterus. The author of the paper believed this was due to the fact that the return circulation from the left side is interfered with by having to pass under the sigmoid, often distended with hardened fecal matter. This pressure, producing congestion of the tube and ovary of that side, predisposes to infection.

Prognosis in catarrhal form usually favorable, though resolution may be tedious. In purulent form not so favorable. May cause sudden death by rupture into the peritoneal cavity and patient drag along and ultimately die of exhaustion.

Most cases of salpingitis of a septic nature, involving both tubes, cause sterility.

Treatment may be prophylactic, medicinal, local, or surgical. The doctor then gave his various procedures.

Among medicines he put forward echinacea as a recent and very successful remedy.

THE UTERINE REFLEXES: THEIR FACTS, FACTITIOUS, AND FICTITIOUS.

Dr. E. R. Eggleston said that a reflex is the mission of a stimulus from one given point to another, for functional relations with it, to subserve the operations of the organs within the given circuit. The tract pursued, sensory stimuli, the centers that receive and transmit, and the tract that returns responsive impulses are always the same, each for its own kind. None of the tracts may be substituted one for the other. No system is capable of reproducing the action of another. There are no vicarious reflex actions. The reflex center is a

point from which voluntary, motor, reflex motor, vasomotor, and trophic influences are distributed, and to which peripheral impressions producing reflex movement and sensations proceed from a limited area of the body. It is also a conducting medium by which great tracts—motor, sensory, controlling, etc., place the brain in connection with all the other segments situated below it. No specific stimulus ever pursues a course to a center over other than its own prescribed tract; and no response to it ever returns over other than that marked out for it.

This is true of the system of nerves; and while it is true that there can be no substitutes, it is still a fact that the dissociation is not so complete as it appears to be. On a basis of this kind, from which there appears to be no appeal, it is easy to believe that reflexes may be misinterpreted; that is, there are factitious reflexes, or the symptoms may have no real resemblance, being only associated, and are therefore fictitious reflexes. Whatever the so-called uterine reflex symptoms, the nausea and vomiting of pregnancy are perhaps the most conspicuous and familiar; but the belief thereby entertained is that it is a reflex form, and on account of the gravid uterus, is a mistake unless we grant the existence of secondary reflexes. The fact that the reproductive system stands as the manifestation of reproductive energy within the body, furnishes the most convincing testimony that disease of this system will be shown by signs of reproductive disorder, as well as by special disturbances. Dr. Eggleston explained at some length that in relation to the heart there is an extremely interesting arrangement with conditions not directly traceable to that organ; it is here under the control of cerebral centers. Its action and reaction are mainly automatic; thus, according to the teaching of both anatomy and physiology, the so-called symptoms of uterine irritation reflected upon the heart become impossible. It is essential that many other conditions be noted, and the more so since they, and they only, rationally explain the transfer of reflexes. The setting up of new ætiological centers, either secondary or original, which implicate either arm or center of a reflex circuit, necessarily modify or inhibit the identity of such circuits.

[Dr. Eggleston was not able to complete the reading of his interesting paper within the time limited.]

THE RELATION OF SURGERY TO GYNECOLOGY.

Dr. O. S. Runnels said that any discussion of morbid conditions that did not embrace ætiology is inadequate, and that the employment of a remedy which did not regard the cause first and *materia medica* second must be aimless and absurd.

Symptomatology without ætiology passes at a discount; the invention of Sims' speculum marks the beginning of gynecology; for not until that time was the requisite knowledge acquirable for treatment. Beyond the employment of various supports for the uterus, little was done in a surgical way to restore a woman to health.

Dr. Runnels said that he had not forgotten the wonderful achievements of McDowell and others in abdominal surgery; he simply claimed that gynecology as a science had not developed until after Sims. He said that gynecology without surgery had seemed paradoxical; that gynecological surgery was here by right of evolution. The rapid increase of surgery has been the source of great mental disturbances to many people. Still, the demand for surgery has not been equaled by the supply. This rapid development of surgery is the result of an imperative call. The great lesson in the school to-day is to know when the necessary operation can be done most opportunely. Women have objected to physical examinations, and have said, "I will die first,"—and have then proceeded to die; and uneducated and unprincipled doctors have catered to such ignorance by advertising to cure without the knife; but this ignorance is being rapidly dispelled by the increase in learning on the part of the patients; so that to-day the "no knife" policy is rapidly disappearing. It is becoming known, thank God, that conservatism which does not conserve is wrong, and it is only the ignorant and vicious, the shilly-shally doctor that allows the patient to drift beyond the breakers into unknown depths.

Dr. Runnels said that it is not yet a double decade since surgeons were called to operate upon enormously large ab-

dominal tumors. Often the question was, whether the tumor should be removed from the woman or the woman from the tumor; where the surgical operation was the last resort, inasmuch as it was death anyway. Is it any surprise that the loss was sixty per cent? Only once in a great while now is a surgeon called upon to remove a mammoth tumor, because everybody has learned better.

When surgeons can make records of cures from 98 to 99 1-2 per cent. by operating upon small tumors, it must be evident that there will remain but few large tumors to operate upon. Five years ago we were contending here against the expectant treatment of appendicitis. Men were still advocating cathartics and oil treatment and waiting, in early appendicitis; and some were called butchers and charged with being crazy by their inordinate desire to make an early cut. We know now that in many cases differentiation cannot be made without an exploratory operation, and that the waiting treatment under such circumstances may be homicidal. Without an exploration they cannot know the exact status of the disease, or whether perforation has already occurred, or gangrene been established, or general suppurative peritonitis is being engendered. Experience has proved that opportune surgery will clear up a diagnosis and save the appendix case.

The rattlesnake warns his victim by his rattle. Mt. Pelée boiled his caldron and vomited death long enough before May 8, to enable everyone to reach safety; and so every appendix case gives sufficient warning if the victim will heed. It was too late at St. Pierre when the lava commenced to run. Surgery teaches that advancement is made by the anticipation of events. The best way to avoid catastrophe is to act before the dreaded event is actually at hand; hence, desperate surgery is to-day less and less called for, and minor surgery more and more in evidence. The evolution of surgery is toward prophylaxis: from the dangerous to the entirely safe; from the corrective to the preventive. Gynecology sustains a twofold relation to surgery; first, to remove the gross obstacles that impair woman's health; second, to anticipate functional wrongs that will end in the degenerative neoplasms with which the surgeon will later have to deal.

It is the province of surgery to see to it that every marriageable or to-be-married girl is physically capable of motherhood. Otherwise surgery will closely follow the parturient act.

It will do conservative patchwork upon ovaries and tubes and save them. The uterine cervix with cancer just started demands immediate removal of the whole organ. The change of life hemorrhage signifies either intra-uterine vegetations or corporeal cancer, and should have the sharp curette immediately. Every nodule in the mammæ is under indictment. Surgery will give woman the benefit of the doubt, but will not wait long. If there is any doubt of cancer on the morning of discovery, the only safety lies in extirpation of the entire breast before noon. The relation of gynecology to surgery is like a man on horseback riding down the valley shouting, "The dam is breaking, get out of the way." The second relation is radical. The catastrophe has been permitted, the wreck has occurred, but now surgery is called upon to clear away the débris.

THE LIMITATIONS OF THERAPEUTICS IN GYNECOLOGY.

Dr. W. B. Hinsdale, the author, had separated his excellent paper into a number of divisions each designed to be complete in itself and yet intimately related to all that followed or preceded. He said that the thoughtful medical attendant, in making a survey of any particular case, gynecological or some other, takes consideration of at least two conditions: one the status of the patient as a whole, the other the possibilities that reside in remedies. The invoice of the patient includes the pathological condition, the state of vitality, and the estimate of recuperative capacity. With reference to remedies the survey should be with regard to all known remedial agencies that may be suggested by the morbid anatomy and symptomatology, and to be guided by former successes and failures under like circumstances; but above all each particular case should be regarded as an individual entity calling for its own special treatment and its closest simillimum. In other words, ultimate success or failure depends upon whether foresight

discriminates what is curable with remedies, or points out when or where operative measures must be summoned, and what results either will be apt to yield. Probably one-half the cases in gynecology that are along the border line of medicine and surgery are spoiled for want of discrimination, by indifference and careless routinism, or by the doctor being an extremist—overestimating, on the one hand, and underestimating on the other, the reasonable returns from either therapeutical or operative procedure. No profession or occupation requires a more discerning and impartial judgment than that of the gynecological physician and surgeon; the ability to see the pivotal point in time requires sagacity and wisdom; the making of a diagnosis, which is very important, is not by any means the limitation of judgment.

The patient for medical care depends to a very great degree upon whether the disease be functional. The necessity for surgical interference depends upon whether it be organic. As a general proposition the indicated remedy is the remedy. Still none of us would be deaf to the cry of constant pain, and all of us would at last, and perhaps some at first, resort to pain-easing drugs.

The old school says, simply regulate the various functions of the body so far as may be possible or necessary in order to maintain as nearly as practicable a physiological condition, and then relieve pain or other disturbing symptoms that may arise. This sounds well. But there is a necessity for clear ætiological discrimination. The first thought, usually, when considering a young female who has shown symptoms of epilepsy, would be some form of operation upon her genitalia. Suppose, however, she has been neurotic from birth. Suppose we use medicines altogether; those, too, may fail, for she is outside the limits of all kinds and methods of permanent cure. She is doomed from conception to bear the mark of degeneracy. Oculist, aurist, orificialist, gynecologist, neurologist, and therapist sometimes must go down in the slump together; and only he is entitled to wave the banner over them, upon the folds of which are emblazoned the words, "I told you so."

In the matter of compensation it often happens that lasting

violence is done to the tissues of the passages involved in the parturient act; and still many women go about with reasonable comfort who bear the defects of severe laceration, but a kind of compensation can sometimes be established upon the part of other tissues.

Boys seem to be more vigorous as a class than girls. So diverse are our notions and theories upon this point that if everyone here were to put forth his explanation he would find somebody to differ with him. Being born alike, from the same fathers and mothers, heredity cannot be appealed to. Heredity accounts for all the children in a family being alike, not unlike. The cases in trouble are artificial, otherwise the boys would require treatment as much as the girls. Legitimately the gynecologist should be as much a stranger to a woman's first twenty years of life as the obstetrician; and his coming across her pathway should not be until after she has had a child. A girl who is well nourished, correctly trained physically, and educated morally, is a good life-insurance risk. When she marries she will not need the services of a physician except an obstetrician now and then.

There is some advantage in considering in this connection the three phases of family existence; namely, the periods preceding, during, and following the child-bearing years. The conditions of the period of middle life are naturally varied from gestation to gestation, from month to month, even from day to day. Other conditions arise from perversions of functions due to artificial causes.

The place where medicines fail ingloriously is in the case of new growths. Compensation and patchwork may assist somewhat in retarding the progressive solution or degeneration of tissues, and hold the thing in check for a little while. The time comes occasionally when the good prescriber must steal away and let dissolution do its slow, but perfect work.

Under the diseases peculiar to women provings should necessarily be made upon women. Because a medicine has been "tried," because it has come into use upon clinical evidence entirely, or has been born into the *materia medica* by some other form of abnormal "presentation" does not add to our medical science. Scientific prescribing will not be im-

proved, even if it be not injured, by an unscientific addition to its volume.

[Owing to the necessity for limiting the readers and speakers as to time, Dr. Hinsdale did not finish the reading of his paper.]

SALPINGITIS, PYO-SALPINGITIS, AND PELVIC ABSCESS.

Dr. J. Emmons Briggs, in presenting this subject, said that while a majority of the diseases to which flesh is heir may be said to arise independently of any influence which the patient or her family may exert, or have power to prevent, we must come to an exactly opposite opinion when we consider the inflammatory lesions of the fallopian tubes. It may be, and often is, through no fault of the woman that she suffers from pelvic inflammation; yet responsibility for her condition exists. Salpingitis, like appendicitis or cholelithiasis, never rises spontaneously. To-day we hear but little of the intricate pathology of cellulitis, parametritis, and perimetritis. These were considered idiopathic conditions a decade ago. Now we know that diseases do not rise spontaneously. In this disease we know that it is by infection.

The diseases capable of producing a septic endometritis and by continuity involving the tubes are, gonorrhea, sepsis following miscarriage or mature labor, criminal abortion, unclean instrumentation in gynecological practice. Dr. Briggs went into the particular description of these several causes, saying in relation to the first that the gonococcus is a true pus-producer, and that clinical evidence strongly supports this opinion. He said that miscarriages are more likely to be followed by tubal involvement than delivery at full term, because of the frequent retention of the membranes, which undergo putrid changes, and these, in turn, are followed by septic endometritis and tubal inflammation.

There is no cause of this disease more serious or far-reaching in its deplorable effects than induced abortion. Everything which goes with this nefarious practice is conducive to infection. Abortion produced by drugs greatly depletes the system.

Under the head of unclean instrumentation Dr. Briggs cited the instance of a young lady of excellent family and of spotless reputation, who for a long time had had a slight leucorrhœal discharge and was advised by a girl friend to take douches. She loaned her her own syringe and instructed her in its use. Shortly thereafter my patient developed a very profuse leucorrhœa, and on a later date I operated upon her for an exceedingly acute pyo-salpinx, which had ruptured into the general peritoneal cavity. She died on the day following the operation. This young lady's mother used this same syringe once following a menstrual period, and soon thereafter began to have pelvic pain, and upon examination I was astonished to find an acute pyo-salpinx. I operated upon her seven days after the operation upon her daughter, making a double tube ovariectomy. Both tubes were distended with pus. I have no doubt whatever that both mother and daughter were infected by the use of the syringe.

The author has a special antipathy, he said, against the use of the uterine sound, because it is an instrument capable of infinite danger and damage. To pass it through an unsterilized region into the cavity of the uterus is to implant therein the germs of disease; and if they do not take root there it is due to good fortune rather than good judgment.

Only a few years ago the feeling of the profession was strongly toward very radical operations in diseases of the uterus and adnexa. Five years ago the vaginal route was chosen for nearly all pelvic inflammation, and in cases of salpingitis the question then in vogue was: "What is the value of the uterus after the ovaries and tubes have been removed?" It is probably no more valuable this year than it was five years ago; yet very few operators will sacrifice it unless it is itself badly diseased. The ovaries were sacrificed if cystic; now they are resected, and, if possible, some portion preserved, if no larger than a pea. A piece of the fallopian tube is saved, if possible, in the hope that menstruation may continue. This tendency towards conservatism is truly commendable, but may be overdone to the extent of complete failure as regards the cure of the patient. Last year a young woman who had had a previous abdominal operation in which her appendix and one

ovary were removed, was operated upon a second time for a cystic ovary, and a very tiny piece of the ovarian tissue was left. We complimented ourselves upon the fact that a few years ago this young lady would doubtless have been unsexed. She made a good recovery, but in less than six months returned to the hospital with a cyst as large as a hen's egg, which took its origin from the very small piece of ovary which was conserved. Five years ago this young woman would have had one laparotomy instead of three.

Dr. Briggs preferred the abdominal route for operation in this disease because it allows of a thorough investigation of the pathology, and permits us to deal with the pelvic organs in the most conservative manner.

If both ovaries must be removed, then, when possible, a rather long pedicle to one amputated tube may be left. Do anything, in fact, which will tend to keep the woman menstruating. This rule applies especially to young women, where to bring about an artificial climacteric is often a source of great mental depression.

Current Comment.

G. E. Herman, M. D.:

The local *treatment of spasmodic dysmenorrhea* is to dilate the cervix. This is best done by the passage of bougies. In most cases the cervical canal will admit a No. 6 bougie easily. A little resistance is usually met with when about No. 9 is reached. When a bougie has been passed which entered with difficulty and fits tightly, after it has remained two or three minutes in the canal it will be loosely held and a size larger can be passed. I have generally continued the dilatation until the bougie met with considerable resistance. This usually begins with the passage of No. 12 or thereabouts. I know not what is the minimum dilatation that is sufficient to cure. I have known the passage of No. 8 bougie, in a case of spasmodic dysmenorrhea and sterility, followed by pregnancy. Before the introduction of dilatation as a means of treatment

it was known that occasionally menstruation could be prevented from being painful by the passage of the uterine sound shortly before its occurrence. Hence extensive dilatation is not always necessary. The enlargement of the canal that dilatation produces lasts for some months, and one would suppose that the larger the dilatation the longer will the effect last, but I have few facts with which to support this opinion.

The cervix does not always yield to the dilating agent with the same readiness. In about one-sixth of my cases I have it recorded that unusual resistance was met with. The fact of such unusual resistance does not in my experience modify the prognosis.

Dilatation does not invariably cure. I have gone through some records of cases to find out what proportion of cases are cured. I find that in at least two-thirds of cases benefit follows. That no relief followed in one-third of the cases dilated does not imply that one-third of cases of spasmodic dysmenorrhea are incurable; it is partly accounted for by some cases having been dilated in which the dysmenorrhea was not of the spasmodic kind. In some of these the patients' statements may have been misleading; in others, the diagnosis was known to be doubtful and the dilatation was done either because nothing else offered any prospect of benefit, or for some reason other than the cure of the dysmenorrhea. But allowing for the inclusion of these cases, I think it must be admitted that some cases of spasmodic dysmenorrhea are not cured by dilatation. Some cases are not cured even by pregnancy. If I say that cure follows in three-fourths of cases, I think I am within the truth. Among my cases in which the disease was primary (that is, dated from the beginning of menstruation), the proportion of cures was larger than among those in which the pain began to be felt at a later age. How long does the benefit last? It is so difficult, for reasons that I need not go into, to keep such patients in communication with their physician, that I cannot say anything very exact about this. The cure may last throughout the patient's whole menstrual life. One patient, whose cervix I dilated in 1878, she being then aged twenty-seven. I saw in 1900. She had menstruated with little or no pain ever since the dilatation, and the irregularity

of the menopause had begun. This case justifies the assertion I have made. In some cases the cure is temporary only; the pain returns. and is again removed by a further dilatation.

As an example I may relate the following case. A patient began to have severe menstrual pain when aged thirty-one. In June, 1893, she being then aged thirty-five, the cervix was dilated, but not by me, so that I have no information as to the method or extent of the dilatation. After it she menstruated without pain till April, 1894, when it returned, and I saw the patient. Bougies from 7 to 11 were passed, and after this menstruation was painless till August. Then bougies from 8 to 12 were passed. Menstruation was again free from pain until November. In January, 1895, I passed bougies from 8 to 13, after which the patient menstruated without pain until August, 1896. In September bougies from 9 to 14 were passed. Ever since, up to the time I last saw her, in July, 1901, she has menstruated without pain. This case gives ground for thinking that the permanence of benefit may depend upon the amount of dilatation. Owing to the difficulty of watching a number of cases over long periods of years, I think it hopeless to attempt an estimate of the proportion of cases in which dilatation has to be repeated more than once.

I have suggested about this treatment little that will be new, yet it is surprising to find text-books published in which it is not mentioned. In the very latest German text-book, published in 1902, dilatation is not mentioned in the chapter on dysmenorrhea. There are other methods of dilating the cervix, but the way I have just described is the best.

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T. Griswold Comstock, M. D.:

From a ripe experience, at the present time I am exceedingly cautious about advising the *use of the curette in dysmenorrhea of young and unmarried females*, and still I concede that there are cases where nothing short of dilatation and curetting will prevent convulsions and even suicide.

In certain cases of dysmenorrhea electrical currents have their advantages, and in this connection I am glad to mention my experience regarding the current of the static battery as effectual in both dysmenorrhea and amenorrhea. In dysmen-

orrhea it exerts a sedative action, and in amenorrhea by its use the menstrual period frequently returns.

In dysmenorrhea we often have as an accompaniment (to which it probably owes its cause) endometritis, but back of all we have, undoubtedly, lesions of the sympathetic nerve. It is, however, in the obstructive variety of dysmenorrhea dilatation and curettage seems rational and to be indicated.

From my experience with curettage, hereafter I shall before resorting to any surgical expedient, patiently try thermal baths and the simillimums, such as gelsemium, pulsatilla, apiol, acetanilid, and viburnum prun. Immediately at the first onset of any pains, a thermal bath; bottles or india rubber bags filled with hot water should be applied locally to the loins and lower extremities, or what will be found the best of all, the electric light bath, together with copious draughts of hot water. This treatment will greatly allay the pains and sometimes act almost as a panacea, relieving the pains so that the flow goes on normally.

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A. M. Taylor, M. D.:

Enlarging experience intensifies my interest in the treatment of diseases of the female pelvic organs through the vagina. It is true that the great majority of operators do not favor this method, which, to my mind, in selective cases, is far superior to the abdominal route, both from the patient's and the surgeon's point of view. For the patient we at least save her from a disfigured abdomen; no unsightly scar is ever present to constantly remind her that she has submitted to the knife. This may not be much to a normal woman; it may, and often does, become an important factor in one nervously inclined. We have removed successfully a diseased organ only to leave a causative agent of morbid impressions. We must also consider the possibility, if not probability, of hernia, and we are not concerned about hernia when operating per vaginam. Neither do we trouble ourselves as to the method of wound closure we shall employ, and whether or not we will be subjected to the annoyance of a mural abscess. If the above reasons should influence one to think favorably of operations through the vagina, I am confident that careful in-

vestigation will satisfy all that, with a properly constructed table and a few suitable instruments, you can command your field by this method just as well as through the abdomen—without subjecting your patient to such danger of shocks, you lessen greatly the danger of sepsis. Think, too, how much more conservative surgery would become with the more general adoption of this method. Think of the great number of ovaries and tubes that could be saved that are daily being sacrificed by the employment of the abdominal method. In all operations by this route, the position greatly facilitates the work. The patient should be placed upon a table which has shoulder-braces attached, and when placed in the Trendelenberg position (which is a necessity), these will keep the patient from slipping away from, and out of reach of, the operator. The following operations, I think, will prove beyond a doubt that the vaginal is the best method to be followed.

The operation for bringing together the ends of the broad ligaments after a hysterectomy as accomplished by Dudley, in abdominal section, has been followed in vaginal sections for some years, and when the ligaments have been spared by disease, so that a sufficient amount of them can be left, it is found an easy and rapid method, and generally gives good results.

The operation for shortening the round ligaments per vaginam is performed by folding them upon themselves and suturing them to the uterus.

Ventral suspension through the vagina is performed by entering the cul-de-sac, and, cutting the vaginal tissue at the crescentic fold with scissors; grasp the lower flap with a pair of forceps, push the finger through the peritoneum, keeping close to the uterus, so as not to injure the rectum; with a pair of clamps introduced, the opening can be enlarged bilaterally to suit the occasion. Introduce the retractors, and with large pads of gauze behind (with silk or tape attached), thereby making a diaphragm between the organs to be operated and the bowels, break up any adhesions that may be found; grasp the fundus of the uterus with a tenaculum, pull it down well into the vagina; with a scalpel scarify it, pass the sutures through, leaving both ends long. Now replace the uterus, and with one of the ends of the suture, thread the Taylor

Vaginal Ventral Suspension Needle, push two fingers through the opening, and press the uterus forward, introduce the needle between the fingers; when the point comes in contact with the parietal wall, which is pressed down by an assistant, scarify the peritoneum with the point of the needle. When this has been done sufficiently, thrust the point of the needle through the abdomen, remove the suture, withdraw the needle, thread again with the remaining end of the suture, and carry through in the same manner as before. The remaining sutures are to be introduced as the first. Holding the uterus well against the abdominal wall, place a shield of lead or ivory perforated over the abdomen, pass the ends of the sutures through, and tie. This shield will prevent the cutting of the flesh from the pressure made by the weight of the uterus upon the sutures. The materials used for suturing are heavy silk-worm gut or kangaroo tendon. If the latter be used, it need not be removed.

While many cases of vaginal fixation can be benefited by this procedure, like the ventral suspension, it does not in all cases give the relief sought. The patients best benefited by vaginal fixation are those who suffer from an anæmic condition, retroflexed uterus, chronic endometritis, or cervicitis with painful menstruation. The operation is performed by first dilating the cervical canal, curetting when indicated. If there are no adhesions present, make the incision anterior to the cervix, this being pushed back; with a small retractor hold the bladder up and out of the way, pull the fundus forward with vulsella. Now place the sutures through the uterus, remove the vulsella, and, by holding the ends of the sutures, scarify the fundus where it is to come in contact with the vaginal walls, then pass a ligature carrier through either side of the vaginal tissue, and bring out the sutures, and tie. The ligation will hold the uterus in position until union has taken place. If any adhesions are present, open through the posterior wall of the vagina, and break them up before making the fixation. We sometimes find that this operation over-corrects the position, but with the dilatation of the cervix and a little time, this trouble seems to improve, and in the majority of cases corrects itself. As regards pregnancy, we have the

same objection as in ventral suspension. However, there seems to be little disturbance after the third or fourth month, during which time there is a tendency in some cases to abort, especially in fleshy women. It has been my pleasure to deliver several cases at full term after vaginal fixation, and in no one of these was there any trouble arising from the fact of the operation having been performed. This procedure has the advantage over the ventral in not leaving an opening for the bowel to become obstructed by getting in behind the ligament made by the suspension. Most of us have had experiences with the bowel in ventral suspension that we do not wish to be called upon to face again.

Tubal pregnancy, ruptured or unruptured, can be operated per vaginam with greater satisfaction than otherwise; where the tube has ruptured, an opening through the cul-de-sac is made and the mass removed, the hemorrhage checked with such rapidity as to lessen the danger of shock, which in these cases is a great factor. Generally, shock is present when the patient is first seen, and time saved in such cases is golden. There is no reason why tubal pregnancy cannot be diagnosed before rupture; and per vaginam it is simple, almost without danger, can be removed, thus saving the patient from the dreaded danger of rupture later on, and with fatal results in many instances. It has been my privilege to diagnose and remove several tubal pregnancies in my limited practice. It is a well-known fact that diseased tubes and ovaries may be opened, drained, treated, or removed through the vagina with almost as little danger to the patient as the same amount of disease conditions in any other part of the body. The opening in the vagina gives us free drainage, and, if care be exercised in preparing the patient during the operation and the placing of gauze pads at the time of operation, we will have little fear of infection of the abdominal organs; for Mother Nature will, within twenty-four hours, shut off all those parts not inclosed in the dressings, by adhesion. Then it is necessary that we make the dressings extend around and above the tube, ovary, or organ we have operated upon. The greatest care should be exercised at the next dressing to preserve the adhesions so gracefully formed for our convenience and the

patient's safety. By this means of working we are enabled to save many pelvic organs that, under other operations and circumstances, could not be done. Fibroids of the uterus, especially situated in the posterior wall and fundus, can be removed easily through the cul-de-sac, using the same technique as for the removal of an ovary or tube; sewing up the incision in the wall with catgut, replacing the organ, and with a running suture close the opening in the vagina.

Often it becomes necessary to break up adhesions in the pelvis without the removal of any of the adnexa. When this has been done, it has been found that a piece of gutta-percha tissue placed between the organs separated will serve to keep them from reuniting. This should be replaced by a fresh piece in twenty-four hours, and after a few days the danger of reunion will have passed. It is possible by this route to perform this operation; the shock and minor damage to these organs making it feasible, which cannot be said of any other method. Suppurative peritonitis can best be treated by opening the cul-de-sac and washing out the abdominal cavity with a saline solution. This should be done frequently; every four hours, or oftener if the case demands it. Tubercular peritonitis, as we know, is benefited by an abdominal incision and flushing out of the cavity. How much easier is the vaginal opening performed, and, besides, this can be kept open and washed daily, giving the patient the benefit of recurrent washing that cannot be given through the abdomen very well.

Shock is one of the greatest factors in operations, and as we know that the longer the anæsthesia, the more the viscera are uncovered, the greater the handling of the intestines, the more the exposure of the delicate sympathetic nerves in these parts, and, as experiments show that when the abdomen is opened the abdominal veins dilate, and in consequence a large amount of blood flows into them, thus leaving the heart and the blood-vessels conveying blood to the important nerve centers at the base of the brain with very little fluid to work upon,—then shock ensues. Hence, when this can be avoided (which can be done by operating per vaginam), is it not far better for us to operate by this method, when we are able to treat diseases with less shock and danger, and with a certainty of being able

to save many organs and relieve much suffering, without subjecting our patients to the grave method of abdominal section, which does not hold out these advantages?

♦ ♦

W. M. Gillespie, M. D.:

I do not believe that it is often necessary in *artificial dilatation of the os in parturition* to use bags to accomplish an end. The possibility of sepsis being produced through their use is to be considered, but I have known of conditions in which rubber bags would be very serviceable. The only bag which I have ever used is the Barnes. There are cases, particularly those in which the pelvic brim is contracted, where the cervix does not dilate because the head will not come down into contact with it, and in such cases there are nagging pains for hours, and even days, with slight effect upon the cervix. The uterine contractions are not sufficiently strong to produce even a molding of the head. In such a case a dilator stimulates the uterus to contract, and thus to cause the head to engage, after which the process of parturition will go on with comparatively little delay.

Antiseptic as well as aseptic precautions should be taken, and if the rubber bag is used it should be thoroughly sterilized by boiling. I have had no sepsis following their use if they were properly prepared and the cervical canal thoroughly cleansed afterward with some mild antiseptic solution. It is very seldom that metallic or other dilators are necessary, if the first stage of labor is managed intelligently, for, in the majority of cases where the cervix fails to dilate, the trouble is not in the cervix, but in some of the surrounding structures. A full bladder or rectum, or narrowness of the pelvic brim, particularly in antero-posterior diameter, will interfere with dilatation. An excessive sacro-vertebral angle prevents the head from coming down in proper relation to the cervix. A very broad uterus, with the lower segment dilated and distended, may lead to the head getting caught on the side of the false pelvis. All of these conditions need but to be named to indicate what should be done. The use of any mechanical dilator in such conditions would be injudicious and unnecessary.

There is a field for mechanical dilators, but I think that for steel dilators is very circumscribed. Where the cervix is firm and a little more dilatation is desired, one might use the bags, or even a metal dilator, in order to secure a little more dilatation before inserting the hand to complete it. In placenta prævia the cervix is always very friable, and the uterine sinuses come down close to the cervix, and when in haste there is always danger of lacerating these sinuses and substituting a hemorrhage which cannot be controlled until the uterus is emptied for one that might be controlled by bringing the breech down into the cervix. I have seen quite serious lacerations follow even very gentle manual dilatation, and if instruments are used to dilate the danger is very much greater.

♦ ♦

T. A. Reamy, M. D.:

I am opposed to all *instruments for dilating* the uterine cervix during parturition. In a large experience I have not encountered a case in which I could not accomplish the desired dilatation by the fingers and hands. With the patient under an anæsthetic, the work can thus be done quickly, safely, and satisfactorily; all the more so because there is practically no danger of rupturing the amniotic sac. This is, in many instances, a matter of the greatest moment. The combined advantages of the bag of water are too often overlooked. Obstetrical students should be carefully taught manual dexterity, and not to rely so much upon other devices. Generally the hand can be sufficiently sterilized. The claim to the contrary is not warranted. In any case of doubt, light, well-fitting gloves may be worn. I am aware that in one of the best of our modern text-books (Hirst) the employment of steel dilators, in certain cases of the character under consideration, is tacitly sanctioned. Still I cannot approve of it.

♦ ♦

J. M. Withrow, M. D.:

A patient, whose history has a bearing upon this subject, had *prolapsus uteri*, then aborted at six months, and later entered the Cincinnati Hospital, where a considerably hypertrophied cervix was amputated. Two months after this a ventral fixation was done. Perhaps three or four months

after this the patient again came to the Cincinnati Hospital with prolapsus, and one of my colleagues opened the abdomen and removed the scar from the old operation. At that time the fundus was still attached to the abdominal wall, but when the patient stood up the uterus would slip out. When she returned (I think it was last May) she was pregnant three months or thereabouts. I had not seen the patient up to this time. The pregnancy was then complicated by prolapsus, the external os protruding three or four inches below the vulva. There were no culs-de-sac. The vagina was everted and there was certainly elongation of the cervix. The patient went on to full term, labor coming on the latter part of November. Called after she had been in labor twenty-four hours, I found her with perfectly efficient pains, but considerably exhausted and with frequent pulse. The uterus had gone back when labor commenced, and at the end of twenty-four hours the os was about the size of an ordinary lead pencil, and its margins were composed of unyielding cicatricial tissue. I then asked for advice and assistance. The question of performing a Cæsarean section was discussed, but we decided that incision of the cervix would accomplish the desired result. With the patient under complete anæsthesia and the os exposed, I grasped the edges of this ring of dense tissue with vulsella forceps and made with long curved scissors four incisions, about half an inch long, radiating from the center, carrying my finger inside the os to see how far I was going and being careful not to strike large vessels. I then dilated rapidly with my hand and used the short forceps. I found the head lying transversely. Rotating rapidly, I delivered it occipito-anteriorly in perhaps fifteen minutes from the time I made the incisions. I then delivered the child, but, finding a considerable lengthening of the posterior tears, I repaired these before delivering the placenta. Then I repaired the two other lacerations. The incisions were not made in a line with the greatest blood supply; and while the posterior ran down an inch beyond the point of the first cut, I did not encounter any hemorrhage from it. The ease with which the operation was done was greatly enhanced by the relaxation of the tissues.

An experience which I had with the largest size of the

Barnes bag will illustrate an instance where the bag is contra-indicated. Dilatation of the os was very slow. The head presented and everything else was apparently normal. In the morning I was told that the pains had been progressing very satisfactorily all night and were becoming severe. I saw the patient about 7.30 o'clock and found that my Barnes bag had disappeared inside the uterus, and instead of a head I had a shoulder presentation. The head had undoubtedly been pushed up by the bag, allowing the shoulder to come down. The bag was one of the fiddle-shaped variety. There was nothing to do under the circumstances but perform podalic version rapidly, delivering the woman of a living child weighing eleven and a quarter pounds.

♦ ♦

M. A. Tate, M. D.:

Cases of *rigid os* are not common, and I doubt very much whether those enjoying a large obstetrical business meet with four or five in a year. I have not seen many true cases. Many cases are called rigid os which are not what is generally meant by this term. In my hands Barnes' rubber bags have been worthless. If an instrument the size of this smaller dilator can be inserted within the cervix the index finger can certainly be introduced, and that is the safest and best instrument. In a case of rigid os the insertion of this smaller instrument and dilatation with it will result, in nine cases out of ten, in bruising of the cervix, and in tearing if more force is used. It is impossible to avoid lacerating, and if a still larger instrument be inserted the tear will be more extensive. In a case where an instrument of the size of the larger dilator of Gau can be introduced the blades of the forceps can be introduced, and by doing this and making slow, gentle traction more decided and surely safer results are obtained than by using any steel dilator. Steel dilators, by their bruising and tearing of the cervix, are strong predisposing factors to sepsis. The question may be very properly asked, what should be done in case of eclampsia with a very obstinately rigid os? In such a case, if I was able to introduce one finger I would try to begin dilatation with it, and then follow up by introducing the other fingers by the so-called Harris modification; and if I was

unable to make any progress, I would then incise the os, deliver the child, and sew up the evenly cut cervix. In a case of rigid os always see that the patient is thoroughly under the influence of chloroform, as you can work with more ease and the os will dilate more rapidly.

G. E. Dickinson, M. D. :

All writers refer to spasmodic contraction of the internal orifice, and the irregular contractions of the body of the uterus—or *hour-glass contractions*—during the third stage of labor, but none, as far as I can ascertain, refer to it as a cause which renders the natural delivery of the child difficult or impossible. We all know it frequently makes the natural delivery of the placenta impossible. The cause of this spasmodic contraction in either the second or third stage is very obscure. Some claim the predisposition exists in the organ itself, but it may be caused by improper frictions or manipulations, or the abuse of stimulating remedies, particularly ergot. They are more often found in twin pregnancies than others; probably never found in the second stage except in twin labors.

The fact that it is usually very hard to reach the spasmodic contraction with the finger, if the head is in the pelvis, renders the diagnosis difficult, and may happen much more frequently than we have any idea.

The case to which I will now refer is a very interesting one in several respects: The patient was a strong, healthy negress, the mother of several children; each previous labor had been normal and comparatively easy; this one lasted about sixty hours. When I reached the house the midwife who was in attendance informed me that the first child, a large healthy one, had been delivered forty-eight hours (breech presentation), since that time the woman had been having strong pains, but the second child had not advanced, and was supposed to be dead.

On examination I found a roomy pelvis, vertex presentation, the head above the superior strait, and movable in any direction. Although the woman was still having strong pains and the os fully dilated, I introduced my hand with very little difficulty and could carry it all around the head, even during

the strongest pains. I suspicioned hour-glass contraction, having seen a case before which was almost exactly the same. The head being easily movable, I carried my hand up until I felt the body of the uterus firmly contracted around the neck of the child.

I administered chloroform and tried to dilate the spasmodic contraction; failing in this, I applied the forceps with very little difficulty, and by making constant traction I had very little trouble in delivering a strong, healthy child about fifty hours after the first. The spasmodic contraction then seemed to become more rigid, although the woman was thoroughly under the influence of the anæsthetic; this, of course, made the natural delivery of the placenta impossible; one finger would not pass the stricture, but I finally succeeded in dilating it sufficiently to get my hand through, when I grasped the placenta and with very little trouble delivered it.

In a few hours after the woman was as bright as could have been expected had her labor been natural and easy. There was only one placenta, one bag of waters, and the space between the attachment of the two cords was about one inch. One of the most interesting features of the case is the fact that the second child lived in the uterus about fifty hours after the delivery of the first child, with the complete discharge of the amniotic fluid, and attached to the same placenta as the first. The placental end of the first cord had been tied by the midwife. Both children were large and apparently healthy.

In this case there was certainly no predisposition, as several previous labors had all been normal and comparatively easy; no indications of hour-glass contractions during either stage; no ergot or other uterine stimulants had been administered. I am sure there had been no improper frictions, as the old midwife knew nothing but to let Nature do the work, and when Nature failed call upon the physician.



Robert Jones, M. D.:

The almost universal early symptom of *insanity in puerperal cases* is loss of sleep, and the first symptoms most frequently occur within the first three weeks after confinement. The

progress of the case may be described as first sleeplessness, then a feverish and anxious restlessness, a busy concern about trivial details, distrust, a suspiciousness, loss of appetite, and a readiness to take offense when none was meant, an exacting irritability and ready reaction to outward stimulus, culminating in wild delirious excitement and mania of the peculiar character already described. When sleeplessness and headache, followed by an indefinable feeling of apprehensiveness, occur in puerperal women of hereditary nervous instability, any sudden unaccustomed stimulus, of however slight a nature, tends to and may presage a mental breakdown. It is for this reason that early attention should be given to sleeplessness and headache. In some of the cases symptoms of unrest appeared upon the second day, and one of my patients was brought under treatment on this date suffering from the most violent delirium, with sensori-motor disturbances. In puerperal women the anxious expectancy of the latter months of pregnancy, followed by the subsequent exhaustion of parturition, causes this period to be one of unusual anxiety even in normal women. It is a period eminently impressionable, active and irritable for all the systems—the nervous, circulatory, secretory, and excretory—and it is one in which disordered conduct appears to result and be out of all proportion to the apparent stimulus. I have known pictures in the lying-in room become the basis upon which a regular system of delusions was weaved, and I have known a mother to injure her child because she herself has been crossed; and I have also known a woman attempt to jump out of a window merely because she suffered from toothache. Suicidal promptings are most common in my experience in the lactation cases. In the insanity of pregnancy they occurred in 41 per cent., and in my puerpal cases in only 21 per cent. The “fear of insanity” acted as the apparent cause in one case, and the mental change against which she struggled came on quite suddenly whilst engaged in her domestic duties; in another the conversation of her nurse that babies were occasionally removed piecemeal; and in a third the suggestion of a slight operation by her medical man was the apparent cause of a mental breakdown. Peculiar mistaken ideas about the baby

are not infrequent; one imagined her baby was a skeleton, and that she was compelled to nurse it; another that her baby and the other children were horrid animals whom she had to destroy. Infanticidal promptings were also relatively more common in the lactation cases, and in married rather than single women.

Delusions as to place and surroundings are not uncommon; women frequently imagine their children to be in bed with them, and they often wrap a portion of the clothing under the impression that it is their infant—acute hallucinatory confusional insanity. I have known religious differences, well understood and tolerated between husband and wife before confinement, to be the starting point of wild and terrifying religious melancholia, when the most abject fear of hell fire caused suicidal attempts.

Bad news has frequently been assigned as the cause. Is this due to septicism or some other form of toxæmia? Is it a bodily exhaustion, or is it partly mental also?

Most of my hospital patients had undergone the most severe bodily strain, for, in addition to the puerperium, they also had the care, responsibility, and management of a home under peculiar difficulties.

There is in all cases of insanity a breaking strain beyond which the crisis occurs. Such is the tendency with some authorities to look upon mental disease as essentially bodily that a reference to mental strain may not be out of place. We know that in ordinary life the perusal of a letter or the sudden communication of bad news may strike the stoutest to the ground; indeed, the physical accompaniments of fear are too well known to require detailing. Fear can paralyze and hope can instantaneously give soundness and vigor to the frame, as much as despair can effect the reverse. It is during the early puerperal period that care should be rigidly exercised to avoid sudden excitement, to procure sleep, and to sustain the organs in a healthy nutritive state during the process of restoration. Once abnormal conditions are started, loss of sleep occurs, hallucinations of the senses arise, and I have noticed in several instances that of the sense of smell, with suspicions of poisoning and refusal of food.

As to hallucinations of the senses, those of hearing were six times as common as any other.

Few had hallucinations of smell, touch, or taste. I have known a case where the too free administration of alcohol gave rise to the most painful hallucinations of sight; the patient imagined she saw the devil, and attempted to murder another under the impression she was killing the devil. With confusion of ideas, the patient has delusions of personal identity; she mistakes those about her for others she has seen and known, and fails to recognize her own identity or that of her baby. She develops marked antagonism to her husband; erotic delusions appear, with immodest behavior and improper language, generally with rapid and inconsequent chatter and indecent suggestions. Marked sexual excitement, with faulty habits mingled with religious exaltation, are more often met with in this form of insanity than in any other. They appear in a person previously of pure and unblemished character, and this condition shocks and alarms everybody about her.

As to the association of prurient language with sexual disturbances and religious exaltation, it must be remembered that love and religion are the two most volcanic emotions to which the human organism is liable, and when the one is disturbed, as so extensively occurs in pregnancy and parturition, the vibration naturally and readily extends to the other. Religious and sexual manifestations associated together are well known among certain classes of the insane, such as the epileptics, and they are not unknown among the sane in the lives of some religious devotees and ecstasies. As Havelock Ellis states, religion, like modesty, consists in the repression of natural impulses, and a certain reticence and restraint are characteristic of what is best in religion, art, and life. When the proper balance between certain definite restraint and impulse is disturbed, as occurs particularly in this form of insanity, the symptoms characteristic of the disease appear with painful prominence. This confusional condition passes into an absolutely uncontrollable and restless violence, accompanied with profound physical exhaustion, in which the patient presents a peculiarly glaring, wild look with a markedly anæmic and general sallow hue.

The bodily exhaustion is probably the cause of an overpowering tendency to yawning which I have frequently noticed in these cases. The gibberish nonsense, erotic, immodest conduct and bad language, the evolutions of shameless indecency, accompanied with noisy delirium and marked religious exaltation, with purposeless restlessness, characterize—sum up, if I may say so—the insanity of the puerperal period, and in this I am disposed to recognize a distinct type of nosological entity. In the insanity of pregnancy and lactation, my experience leads me to conclude that there are no general symptoms characteristic of these periods, and in the pregnancy cases no unanimity of opinion, other than that the third stage of labor in the insane is perhaps generally precipitate, can be obtained. In some there was slowness on the part of the uterus to contract after the birth of the child, and free hemorrhage occurred. The patients were described in some cases as stubborn and resistive. One case was a placenta prævia; in two cases labor came on quite suddenly. Many of the infants failed to survive their births for long, and I consider that insanity is very unfavorable to the life of the offspring, which, after all, may be a kindly Providence.

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D. Mackintosh, M. D.:

For the last five years or more I have abandoned, as a routine practice, *the use of the abdominal bandage* in the toilet of the lying-in. I have been induced to do so for two reasons. First, because I could see no good in it, and second, because I fancied I could see positive harm in it.

The advantages claimed by the advocates of the bandage are that it gives to the patient a feeling of comfort and a sense of security, that it preserves the figure, and that it lessens the tendency to hemorrhage. I feel quite sure that there is very little, if anything, in these contentions. I have yet to learn of a single woman in whose case the bandage had been employed in a previous confinement, but whom I had induced to dispense with it on a subsequent occasion, ever afterwards expressing any desire to return to it. On the contrary, they all tell me they get along very much better without it. I admit that sometimes it requires all my persuasive powers to convince

them that this practice is a useless one. This is because there is a tradition among women, and physicians too, that it is an application of indispensable necessity. That the bandage preserves the figure I have grave doubts. If there is anything in this contention it would only apply after the patient is up and about, and even admitting that there may be something in it, the slipshod method adopted by the majority of physicians in applying it would defeat its object. That the bandage in any way lessens the tendency to post-partum hemorrhage I am quite convinced is a mere fancy.

In my experience, and after careful observation, I have not seen more cases of hemorrhage since I abandoned this practice than before. Indeed, I might go further and say that I have seen fewer cases under my present practice, the reason for which obviously being the temptation to apply it too soon after the completion of the third stage of labor, thus preventing the accoucheur from grasping the uterus when it begins to relax, which is the first signal of danger.

The disadvantages of the abdominal bandage present themselves to my mind in two classes—theoretical and practical.

1. It enhances the chances of subsequent prolapse of the uterus. In a normal case of labor, after the completion of the third stage and after full retraction, the uterus will occupy a position about the middle of the abdomen. If the binder is applied with sufficient firmness to effect the purpose intended, it will cause the uterus to move in the direction of least resistance, viz.: towards the pelvis, and if it is maintained in this position during the period of involution, it will be forced into the pelvic cavity and result in prolapsus.

2. It increases the danger of sepsis.

Unless the bandage is changed every day, which, as a general rule, it is not, it becomes soiled with the lochia, and the resulting decomposition is a constant menace to the life of the patient, because of the danger of septic infection.

The practical objections are:

1. It is a source of discomfort. Paradoxical as it may appear, women frequently complain that, instead of adding to their comfort, it is really a source of discomfort to them. They say that the moment the highs are flexed on the abdomen,

the bandage is converted into a coil or rope, which is anything but comfortable.

2. Its application entails on the patient an amount of exertion that is undesirable. I suppose it will be admitted that perfect repose at this particular juncture is of the greatest advantage. I sometimes fancied under my former practice that this extra exertion opened the floodgates of a dangerous hemorrhage. Under any circumstances I consider early application of the bandage an unjustifiable procedure; and of the two alternatives, early application or not at all, I prefer the latter. Although it is the duty of the physician to stay with his patient until danger of hemorrhage is practically over, there are many times when this cannot be done. In such cases it might be urged that the application of the bandage might be left in the hands of the nurse, to be attended to later. This might be done if we had trained nurses, to whom this duty could be entrusted. But in most cases there is no trained nurse, and in some cases no nurse at all. On the whole, therefore, I think it better to dispense with the bandage altogether.



J. M. Fisher, M. D.:

Than *ruptured tubal gestation* there is no condition, without exception, within the whole range of gynecological practice that should be so well understood by all classes of medical men, specialists of every variety, and family practitioners in particular. Women consciously or unconsciously pregnant, in good or poor health otherwise, may meet with this accident in the presence of variable surroundings and at any time, and in the exigency the physician nearest at hand is usually summoned to give relief or timely advice.

The diagnosis being made, prompt surgery, with but few exceptions, saves the patient, but sad to state, a want of appreciation of the significance of a few well defined symptoms on the part of the attendant is the rule, and the unfortunate victim often dies in consequence, or if, perchance, the hemorrhage is spontaneously arrested, and the patient recovers from its immediate effects, she may succumb to an acute infectious process subsequently, or suffer from a long and tedious in-

validism, for the relief of which, in a large proportion of cases, an operation for the removal of certain destructive secondary results eventually become necessary.

Time and again has the writer been called to see patients dying, or so exsanguinated that operative interference would have been useless, and when resorted to in a few of the doubtful cases, hastened the fatal issue, and yet in not a single instance should the accident have been mistaken for anything else than a ruptured gestation sac with consequent concealed hemorrhage, had the family attendant realized the plain and unobscured significance of the symptoms.

While true that but few of these unfortunates consult a physician before rupture of the gestation sac, nevertheless a knowledge of the main causes of the primary disorder, together with a brief review of its most prominent symptoms, often prove of value in coming to a definite conclusion in cases not so clearly defined at the time of the accident.

Ectopic pregnancy, with comparatively few exceptions, is tubal. Its causes may be summed up in congenital abnormalities, the presence of new growths, or other pathological conditions within or without the tubal structure that retard or arrest its functional activity. The latter are quite numerous, but clinical observation has demonstrated that among the most important are those that occur in connection with inflammatory processes, resulting in infiltration and fixation of the tube, and in flexures, cicatricial contractions, and sacculated dilatations along the course of the canal. Loss of the ciliated epithelium, as a necessary factor in the production of a misplaced conception, has been disproved by recent investigations. This structure frequently remains intact in the presence of marked inflammatory changes, and its presence is the rule and not the exception in tubal pregnancy. Of cases that have come under the writer's observation, most of them were subjects who had miscarried or borne a child several years previously. The cause of the sterility in these cases, upon further investigation, was generally traceable to an antecedent pelvic inflammation of a chronic type, but not of a character to detract the general health, and, as is usual, they enjoyed excellent health from the standpoint of symptoms and general

nutrition at the time of conception and up to the moment of rupture.

In the early weeks all the subjective and objective signs of a normal uterine pregnancy are possible, but the usual history is an entire absence of the subjective symptoms, save that of a delayed or suppressed menstruation, followed in some cases, within six or eight weeks from the date of the last period, by a profuse metrostaxis with a discharge of decidua, or as is most frequently the case, by moderate and irregular, though persistent, uterine bleeding of a dark color. One-sided pelvic pain corresponding with the location of the pregnancy, while present in some cases, is frequently absent. Indeed it is rare that a probable diagnosis of pregnancy can be made from the sensations experienced by the patient, or even from the condition or appearance of the mammary glands. In so far as the patient's previous observations are concerned, therefore, she may give but two symptoms of value in making a diagnosis in connection with the more or less pronounced acute manifestations at the time of the rupture, viz., disturbance of menstruation in the form of metrorrhagia following a missed period, which obtains almost invariably, and in a large proportion of cases sterility of several years' standing following a previous pregnancy.

Rupture of the gestation sac with consequent internal hemorrhage, with comparatively few exceptions, takes place before the fourteenth week, and usually at or about the seventh week. In the graver cases the three cardinal symptoms of the accident are sudden, sharp, abdominal pain, collapse, and acute anæmia. The patient, previously in good health, while in bed, at table, straining at stool, or in an effort at lifting, or without any special simultaneous incident, is suddenly seized with abdominal pain and a sensation of something "giving way." She may become faint to a degree of momentary unconsciousness, but usually retains her mental equilibrium and falls or sinks in collapse. Her expression of countenance is anxious and overspread by a deathly pallor. The pulse at the wrist is absent, or rapid and flagging. She may be seized with nausea and vomiting. For the moment the condition may be mistaken for ordinary faintness. But the latter is of short duration,

and the pulse presently returns and gradually becomes more regular, and is characterized by its slowness, force, and fullness, and within a comparatively short time the patient's former color is restored, while an active and more or less persistent hemorrhage appears, the pulse is irregular, increases in frequency, becomes small and weak, and possibly imperceptible. An improvement in the quality of the pulse may take place at intervals, but its frequency will remain uninfluenced so long as the bleeding continues. The anæmia is pronounced and persistent. A vaginal examination usually reveals a bloody discharge; a purplish hue of the mucous membrane may be present or entirely absent; the cervix may be softened and the body of the uterus enlarged; pulsation of the vaginal vessels upon the affected side, with an enlargement corresponding to the lateral aspect of the uterus may be detected, and a boggy swelling in Douglas' pouch is generally present, due to the presence of blood clot.

In some cases no abdominal symptoms, either subjective or objective, are detected that point to the existence of pregnancy, save the one evidence of diffuse internal hemorrhage, which then alone is the chief criterion to a proper diagnosis and a rule for action. It is not an infrequent venture for the gynecologist to make a diagnosis of ruptured ectopic pregnancy before seeing the patient, simply from the generally graphic description of symptoms (unquestionable in their significance) by the patient's friends or the family attendant, and to have his opinion confirmed by subsequent operation.

There are other pathological conditions that may give rise to acute symptoms simulating a ruptured gestation sac, and among these may be mentioned intussusception, volvulus, acute appendicitis, gastric perforation, twisted ovarian pedicle, etc., but these are all so infrequently associated with recent menstrual disturbances of the character indicated, and are generally attended by more prolonged acute pain, less profound anæmia, and a more variable but less erratic pulse, while the age of the patient, her social state, and the history of the development of the disease, finally culminating in the acuter manifestations, and the rare coincidence of the existence of any of the former conditions, in the presence of other clinical evidences that point

to a possible pregnancy, should place the probability of confounding ruptured tubal pregnancy in a given case with any one of these among the extraordinary rarities.

Considering the gravity of the condition, its telitale symptoms, and the practical unanimity of opinion on the part of those most experienced, the injunction will well bear repetition, that the physician who is called to see a case of recently ruptured tubal gestation should not alone be able to arrive at a positive diagnosis with ease four times out of five, and make a successful guess of it in the fifth instance, but, this done, he should feel that he has still one more scientific duty to perform, *i. e.*, operate or secure someone who is willing to assume this responsibility, as early as is consistent with a proper surgical technique.

♦ ♦

M. L. Moore, M. D.:

I will report a case of central *placenta prævia* in a patient aged thirty-six, a multipara. She was a large plethoric woman, weighing probably two hundred pounds. During the first four months she was very sick, after which time her condition was normal. My patient lived about one block from my house. At 2 A. M. I was awakened by the husband, who stated his wife was bleeding to death. I quickly dressed and ran to his house. This was at the beginning of the eighth month of pregnancy. I found her lying in a pool of blood extending from her feet to her head and a pool on the floor, where it had run over the edge of the bed. Patient had a rapid pulse and was very pale. I immediately tore a fresh laundried sheet into strips and squeezed this out of vinegar and cold water. This was packed tightly into the vagina, which effectually controlled the hemorrhage. I then called in counsel and we decided to dilate the cervix, which we did by putting in water bag of Barnes and packing gauze below it. An external examination showed the head in left iliac region, and we decided to try the external method of version. I succeeded in about a half hour in getting the head near the fundus of the uterus. A bandage was applied and in a few hours labor came on, the pains increasing in force and frequency. After several hours I removed the packing and, with the patient

anæsthetized, introduced my hand in the vagina, swept my fingers around the cervix, and found on one side about half the length of index finger, the membranes, which I ruptured and without any difficulty, caught the foot and dragged it into the cervix. I continued traction until the thigh was firmly wedged and hemorrhage controlled. The patient was kept lightly under ether, and was given frequent drinks, as at that time we knew nothing of salt infusions. The traction was kept up, slowly dragging the body into the cervix and it was finally delivered. The placenta was quickly delivered. She was given a hot sterile vinegar and water douche. The child was resuscitated after some little time. Patient made a good recovery.

◆ ◆

H. R. Clarke, M. D.:

Was consulted in January, 1902, for a case of *prolonged lactation*. The child was at that time suffering from bronchitis and constipation. An inquiry into the nature of the child's diet elicited the fact that "she still had the breast," although she was five years and two months old. The mother is forty-seven years of age, and well nourished, but somewhat sallow. She had been married twenty-four years, and of nine conceptions eight children have been born at term, and there was one miscarriage at five months.

Of the children, three—one male and two females—are living; three males and two females died of diseases common in children. The youngest child (a female) up to the time we first saw her was fed at the mother's breast three or four times every day, but for the past two years has had some additional food. The mother "always had plenty of milk." She commenced to menstruate at sixteen, but during the period of lactation under discussion had menstruated twice only (in August, 1901, and February, 1902). The breasts were full, and milk could be readily squeezed from them. The microscope showed this to contain nearly as large a quantity of fat as a specimen of fresh cow's milk with which it was compared. I advised that the child be weaned, and suggested a more suitable diet. This was done, and after seven days the secretion of milk ceased.

At the beginning of March the breasts were found to be small; the nipples and areolæ deeply pigmented; and the child doing well.

Translations.

LATENT HEMORRHAGE IN PREGNANCY.

Dolérís (Comptes Rendus de la Soc. d'Obst., de Gyn. et de Pédiat de Paris) publishes two cases where no marked symptoms indicated internal bleeding. The first patient was thirty-five years old, and had not been pregnant for nine years. After much hypogastric pain in the earlier months, she was taken in the seventh with attacks of syncope. The pulse did not exceed 100, and the fainting was attributed to neurosis. The uterus was suspiciously tense. In a few days labor set in. The membranes were ruptured after very slow spontaneous dilatation of the os; 470 grams of ordinary liquor amnii escaped. Forty-five minutes later a dead and macerated child, weighing 5 1-4 pounds, was expelled head first. Hardly was the funis divided than the placenta appeared at the vulva. On extracting it, great quantities of clot and dark fluid blood escaped. The uterus required to be emptied, by the introduction of two fingers, of yet more liquid and clotted blood. The uterine cavity was then washed out with a 1 in 1000 solution of carbolic acid; the blood was old, but not putrid; 500 grams of serum were transfused. On the fourth day, the lochia being fetid, the curette was used and an antiseptic tampon inserted after intra-uterine injection. The patient's condition at once began to improve, and involution proceeded satisfactorily. Two and a-half pints of blood were shed before labor; there was no evidence of any fresh blood escaping after the pains began. The placenta was examined and the circular sinus found torn through in two places. The sinus, Dolérís believed, burst through congestion and not on account of any traumatic influence.

The second case was remarkable, and perhaps impossible to explain with precision. A primipara, aged thirty-one, suffered from constipation, and later on, in pregnancy, from unusual distention of the abdomen. In the seventh month an acute attack of pain and collapse, diagnosed as peritonitis following obstruction, occurred. There was no fever, nor any vomiting; the abdominal distention was enormous. Hydramnion with twin pregnancy was suspected. Labor was

beginning, the membranes were ruptured artificially on the next day, and 300 grams of ordinary liquor amnii came away. Within five hours a dead male twin was expelled, a second bag of membranes presented at once and was ruptured, only a little liquor amnii escaped; lastly, a second male twin came away. Each weighed but little over a pound. The placenta, which exceeded a pound in weight, was single, with two amnia. No clots or fluid blood could be found. The patient felt much better, but remained distended; the coils of intestine could be seen through the parietes, yet there was no vomiting. After more or less successful attempts to get away flatus and fæces, the patient grew worse, the uterus was found pushed up, and a tense mass bulged into Douglas' pouch. Within three weeks after labor the mass extended to the umbilicus. Doléris did an abdominal section, and discovered a very large pelvic hæmatocele covered by omentum and adherent coils of intestine. The superficial part of the hæmatocele formed a kind of fibrinous wall or capsule, covering the clots and liquid blood, about 3 1-4 pints altogether. There were loculi formed by fibrinous septa, no doubt representing successive hemorrhages, and the blood in one loculus smelt very fecal. The uterus showed no laceration; the left appendages seemed to form a mass rather bulkier than the right, but the operator avoided too much handling and inspection. Drainage through the vagina and through the abdominal wound was established. A fecal fistula developed, and fæces discharged through both drains. Within a month both had closed, and the patient recovered completely. The blood in the cyst contained the bacillus coli in abundance. Six months later the patient was in good health. The uterus was retroverted; the cavity measured a little over three inches; it was replaced. The left appendages were enlarged, movable, and painless; there was no trace of any pelvic deposit. Doléris admits that the origin of the three pints of blood shed into the peritoneum remains unsettled. There might have been rupture of a left tubal sac, or of some pelvic vein. There was no evidence of rupture of the uterine walls, or of wound of the uterus inflicted during an illegal operation.

RUPTURE OF THE UTERUS.

G. Wiener (Münch. med Woch.) reports and discusses two cases of rupture of the uterus. The first case was that of a XII-para, aged thirty-four years. The membranes were said to have been ruptured twenty-four hours before assistance was sent for, and on examination a transverse presenta-

tion with prolapsed cord was found. The fetal head lay over the left ilium, and the back was toward the mother's anterior abdominal wall. A foot presented at the os. The cord was replaced manually after an anæsthetic had been administered, and the foot was brought down to prevent a second prolapse. The fetal heart became less rapid after a time, and therefore the forceps were applied, and the body was delivered with caution. The head remained at the pelvic inlet. Answering a gentle pressure from without, this suddenly followed the rest of the fetus. A profuse hemorrhage took place immediately after the birth, in spite of a well-contracted uterus. Manual examination revealed that this issued from a deep tear in the cervix (left side). The depth of the tear was about one-quarter inch, and the upper margin reached about one inch above the internal os. The placenta was rapidly removed, and the cavity was packed with iodoform gauze. After some difficulties had been met the patient, who still had a good pulse, was removed to hospital. On arrival, however, blood trickled through the packing, and there was marked tenderness over the left side of the abdomen. The patient appeared very ill. The abdomen was opened, and blood was found in the left parametrium and broad ligament. The uterus was torn through to the extent of about eight inches. The tear was carefully sutured, the vagina and uterus freed from blood clot, and the tear in the cervix was also sutured. Two hot lycol douches were administered, the vagina was loosely packed, and the abdominal wound was closed. The patient made a good recovery, and when last seen was in good health, and was again pregnant (fourth to fifth month). In this case the tear inside the uterus took place under the gentle pressure, when the head remained above the pelvic brim, and the complete rupture into the peritoneum occurred after removing the patient. The second patient was a III-para, and was twenty-eight years of age. The membranes ruptured three days before the patient sent for doctor or nurse. On examination a hydro-cephalic fetus was found to be presenting by the vertex, but the head was already largely situated to the left side. Version was performed, and the after-coming head was punctured. There was profuse hemorrhage immediately after the birth. The uterus could not be felt through the abdominal wall. On introducing the hand a large tear was found in the left side of the uterus, and the placenta was found in the abdominal cavity. After plugging with aseptic gauze the patient was removed to hospital. She arrived with a thready pulse, about 140, temperature 100.8°, and appeared extremely anæmic. The abdomen was tumid, very tender and dull in

the lower regions. On opening the abdomen blood was found in the abdominal cavity. The uterus showed a tear from the insertion of the left tube. The edges of the tear were very friable. The uterus was amputated through the cervix. In the peritoneum was found the gauze plug which had been placed in the uterus before the removal of the patient. The cavity was carefully dried with swabs, the stump and broad ligament (which had been torn) was seen to be free from hemorrhage, and the abdominal wound was closed. The patient made a good recovery, and when seen six months later, was in good health. The stump was freely movable.

THE VOMITING OF PREGNANCY.

Condamin (Lyon Méd.) believes that the vomiting of pregnancy is due to an intoxication of the organism, and that the rational treatment is to rid the organism of toxins. He has had great success during the last few years in many obstinate cases by withholding all food from the stomach for eight or ten days, and by the rectal injection of artificial serum. The following case serves as a good example: A young woman had been unable to retain any nourishment for three weeks, and was sent to hospital (for the induction of abortion) by her medical attendant, who had tried all the usual drug treatment in vain. The patient looked extremely ill, and was unable to stand, even with assistance. The temperature was normal and the facies cadaveric. The condition was considered too serious for any uterine interference. Three or four liters of artificial serum were therefore ordered to be given daily per rectum. On the second day the urine became much increased in quantity, and the patient took notice of her surroundings. On the eleventh day fluid food was given by the mouth, and tolerated perfectly. In other grave cases milk has been given on the fourth or fifth day from the beginning of treatment, but as a rule it was found that gastric toleration was not re-established before the eighth day. The rectal injections generally caused very little disturbance, but if any irritation resulted the addition of a few drops of laudanum to the injection was often enough to allay it. If the injections cannot be retained the serum may be given subcutaneously, but by this means large doses cannot be administered at such short intervals. The method is applicable to both slight and severe cases, and the combination of rest for the stomach and flushing of the tissues has been found to allay not only the vomiting, but also the troublesome pyloric and epigastric spasm. In only one case

has Condamin failed to prevent a fatal issue, and here a very acute cerebral oedema was found at the necropsy.

DYSTOCIA FROM DROPSICAL FETUS.

Opitz (Centralbl. f. Gynäk.) conducted a labor where the mother, aged thirty-two years, was in her twelfth pregnancy, and suffered from a high degree of anasarca with amaurosis; the urine became almost solid on boiling. This labor was therefore induced prematurely. Hydramnion and, probably, dropsical fetus were diagnosed, but there proved to be very little liquor amnii. Labor lingered for long, the cranioclast was used, but then it was difficult to draw down the arm. That member was torn off directly traction was applied, and the fetus could not be delivered until the abdomen had been opened to let out several pints of ascitic fluid. Flooding followed, ceasing on expression of the enormous oedematous placenta, which weighed five pounds. The puerperium proceeded without interruption, and the albumin gradually disappeared from the urine. The fetus showed very arrested development of the kidneys and bladder, and Opitz compared the dropsy to hydramnion; the fluid secreted and discharged into the amniotic cavity in the latter condition being retained in the tissues in this fetus, owing to defective development of the kidneys. Opitz advocates decapitation in a case like the above: in another of the same kind he amputated the already delivered head. The dropsical trunk is more easily managed afterward. Strassmann, in a discussion on this case, noted how often there was a syphilitic taint, causing nephritis in the developing kidneys; the large placenta in this case was suspicious. Opitz admitted that syphilis existed in many instances, but it was very improbable in his case.

NEW GROWTH IN THE UTERINE STUMP AFTER SUBTOTAL HYSTERECTOMY.

Condamin (Lyon Méd.) records two cases in which partial hysterectomy for fibroids was followed, after a year or more, by malignant degeneration of the uterine stump. In the first case his patient was fifty-eight years of age, and had had no children. The fibroid reached to the umbilicus, and caused considerable metrorrhagia. It was removed by Laroyenne's method, the stump being covered by peritoneum. The patient made a quick recovery after the operation, but about a year later she again suffered from metrorrhagia. On exami-

nation, a fungous mass was found embedded in the vaginal roof. This spread rapidly to the abdominal scar, and caused death from profound cachexia. In the second case the patient was forty years of age, and suffered from much loss of blood resulting from multiple fibroid tumors. The same operation was performed. A month later only a narrow fistulous track remained of the abdominal wound, and this soon closed. The loss of blood ceased almost immediately. Three or four years afterward, during an operation for the radical cure of a hernia, the uterine stump was found to have increased in size, and three months afterwards was found to be fixed by a hard epitheliomatous growth which caused metrorrhagia, rapid cachexia, and death. Péan stated in 1897 that he had seen sarcomatous and epitheliomatous growth in the stump several times. Pozzi has recorded four or five cases of malignant degeneration after partial removal. Condamin believes then, in spite of the good results which Bouilly and others have claimed for the supravaginal operation, that total extirpation should always be undertaken.

CANCER OF STOMACH, ETC., AND SECONDARY CANCER OF THE OVARIES.

Schlangenhaufer (Monats. f. Geb. u. Gynäk.) has prepared an instructive series of tables comprising 79 cases (8 under his own observation) of metastatic ovarian malignant disease associated with primary new growths in the stomach, intestines, and other abdominal viscera. The seat of the tumor was the stomach in 61 cases, a portion of intestine in 10, the gall ducts in 7, and the suprarenal capsule in 1. A further analysis of the nature of the tumors showed how the stomach preponderated; the tumor was specified as cancer of stomach in 36 cases, cancer of pylorus in 13, ulcer of stomach presumably malignant in 4, sarcoma of stomach in 3, endothelioma of stomach in 1, chronic gastritis of suspicious character in 1, "tumor of pylorus" in 1, and tumor probably gastric in 1. Tumor of the ileum (malignant adenoma) was noted in 1 case, cancer of the large intestine in 9 (very distinct in 7 of the 9). Cancer of the bile ducts was detected as the primary disease in as many as 7 (8.8 per cent.) of these cases of secondary malignant disease of the ovaries. Turning to the nature of the ovarian tumor, it was some form of carcinoma in 51 (64.5 per cent.), including 2 cases of endothelioma and 2 of ovarian cyst with cancerous degeneration. The 1 case registered as "adenoma" was probably carcinomatous; out of 10 not distinctly certified the majority must have been carcinomatous. There remain

but 17 truly sarcomatous, and 2 "myofibromata," hardly malignant and more probably coincidences, are included. Thus, as in primary ovarian malignant disease, carcinoma greatly exceeds sarcoma in frequency.

ECHINOCOCCUS CYSTS OF UTERUS.

To'th (Centralbl. f. Gynäk.) performed posterior colpotomy on a woman, aged twenty-three, with a retro-uterine tumor of doubtful nature. No fluid came away on puncture, then a wide incision was made and big and little cysts came away. They had developed under the serous coat of the uterus, some had grown on the fundus of the bladder. High up above Douglas' pouch lay a swelling as big as a lemon; it was a big hydatid cyst lying under the serous coat of a coil of small intestine. The cyst was enucleated, and then the wound in the serous coat left after the enucleation was closed by a continuous suture.

PELVIC CELLULITIS AFTER LABOR: TUBO-PARIETAL FISTULA.

Haeckel (Monats. f. Geb. u. Gynäk.) was consulted by a woman aged thirty-five. About five months previously she had been delivered, and a very bad attack of pelvic cellulitis followed, the exudation extending high above the pubes to within a couple of inches of the umbilicus. This exudation had not become absorbed, and there was a fistulous orifice into its substance a little to the left of the middle line, where the patient's family doctor had made an incision. The pelvis was comparatively free from exudation, so that the fundus and appendages were no longer involved in the parametric deposit. Haeckel opened up the fistula, exposing a big cavity full of pus, with extremely thick and tough walls. The exudation then gradually disappeared, and the patient's temperature, which had been high, fell to normal. Eight months later the patient complained of severe pain. A bulky hernia had developed in the old cicatrix, in which now lay a narrow fistulous opening admitting a very fine probe for three inches. Blood issued from this fistula for several days during the period, at other times only a little mucus escaped from its orifice. Haeckel did an exploratory operation, and was surprised to find how completely all trace of the dense walls of the old parametric abscess had vanished. The left fallopian tube was traced into the fistula, the orifice of which was the tubal

ostium. The tube, ovary, and integument around the fistula were excised in one piece. The patient made a good recovery.

CONGENITAL ANUS VESTIBULARIS: DELIVERY.

Von Bardeleben (*Centralbl. f. Gynäk.*) reports a case of interest in comparison with that recorded by Zander. He exhibited the patient before the Berlin Obstetrical Society in February. She was thirty-one years of age, and had a very distinct anus preternaturalis vestibulo-perinealis. He had recently attended her in her confinement. There was high temperature during parturition, the reason of which is not explained, and there is no mention of any accumulation of feces in the vagina. Owing to the fever and to the arrest of the head, assistance was needed; the axis-traction forceps proved valuable. In order to spare the rectovaginal septum from dangerous tension an incision was made in the right side of the vulva close to its lower end. Childbed progressed normally, without any feverish reaction.

STRICTURE OF VAGINA FROM CARBOLIC ACID: DYSTOCIA.

Zangemeister (*Centralbl. f. Gynäk.*) had great difficulty in delivering a woman, aged twenty-one, in her second confinement. Nearly two years earlier, when the first child was born, the perineum was ruptured, and, acting on a friend's advice, she applied very strong, almost pure, carbolic acid to the outer genitals. Extensive sloughing with suppuration followed. There was pain on walking and when sitting, but micturition and defecation were unaffected. The vulva was reduced to an oval ring, tough as cartilage, just admitting two fingers; the deformity of the external parts was extreme, the anus was drawn forward, and the perineum was represented by a small bridge of cicatricial tissue. The ring of scar tissue at the vulva kept the vagina constantly open. The patient was in good health, and the labor pains strong. The head was arrested for several hours by the cicatricial ring, which did not yield in the least, and was at length pushed forwards by the fetal head. At the same time the perineal cicatrix was stretched to an extreme extent, the anterior rectal wall was forced out of the anus, and the bowel was thus placed in danger. Radiating incisions were made, bleeding was very free, the child was delivered with forceps. The perineum was repaired as well as possible, and the vulva gaped less, in consequence, when the

parts healed. In Wyders' case a ruptured perineum had been neglected twelve years before; the vulva had almost closed, and coitus took place through the urethra and a large vesico-vaginal fistula. In Pompe van Meerdervoort's case the labia majora had firmly fused together to the extent of one and three-quarter inches, and it was remarkable how conception could have taken place.

VESICULAR MOLE IN TUBAL GESTATION SAC.

Matvieff and Sykaff (Vratsch) recently exhibited, at a meeting of the Moscow Gynecological Society, a gravid tube containing a typical hydatidiform mole; there was an accessory ostium, and the adjacent ovary contained two corpora lutea in a state of cystic degeneration; the authors contend that this change determined the molar pregnancy. The patient was thirty-two years of age, and was admitted into hospital on February 21, 1901, with symptoms of internal hemorrhage. It was her eighth pregnancy; she had aborted three times, and been delivered at term four times. The last period was in the middle of December, 1900; shortly afterwards crampy pains in the abdomen set in, lasting twenty-four hours. A second and shorter attack occurred two weeks later, a third about February 15, and the last on the 19th. This attack was followed by vertigo and loss of consciousness. There was no bleeding from the vagina. The uterus was somewhat enlarged; on its right lay a somewhat larger, soft, tender mass. Ruptured tube was correctly diagnosed, and abdominal section performed. The patient recovered, and the tube showed the appearances described above.

PREGNANCY IN UTERUS BICORNIS TAKEN FOR ECTOPIC GESTATION.

To'th (Centralbl. f. Gynäk.) notes a case of much obstetrical interest where a nullipara, aged twenty-one, became gravid, and applied to a doctor, when in the second month, for crampy pains in the abdomen and severe vomiting. The vagina was narrow; in the anterior fornix a cord-like structure could be felt, running from the pubes backwards and to the left to its insertion into the cervix. The uterus felt small, bent forwards and to the left; to its right lay a soft, smooth, and moderately movable body, connected, it seemed, with the right cornu. The history implied extra-uterine pregnancy, the local conditions suggested a dermoid tumor. Anterior

colpotomy was insufficient to allow of thorough exploration. The abdomen was opened, and then it was found that there was a true uterus bicornis with pregnancy in one cornu. The wounds were closed, and the patient recovered, but abortion occurred on the third day. This case, To'th observes, shows the great disadvantages of colpotomy as compared with abdominal incision.

THE TOILET OF THE NEWBORN INFANT.

Riva-Rocci (Gaz. Med. Ital.) recommends the following routine: (1) insert the little finger in the mouth as far as the larynx and remove any mucus or foreign body there; (2) with 1 in 5000 solution of perchloride and a tampon of sterilized wool wipe the outer surface of the eyelids; with a second tampon rapidly moisten the conjunctival sac with a few drops of this solution, and carefully dry the external parts; as a rule no reaction occurs beyond a slight redness for a few hours; (3) with a third tampon cleanse the anterior nares; gonococcus infection here is not uncommon and is very intractable; a nasal douche has been suggested, but has its risks, and the author considers the other method efficient; (4) the bath should be of pure water; alkalies, soaps, and disinfectants are all irritating to the infant's skin; the only addition permissible is Unna's super-fatted soap; the bath should be at a temperature of 95° F., so as not to produce cutaneous hyperæmia and consequent nerve symptoms (in one case only is a hotter bath permissible—namely, in an asphyxiated child in whom the ordinary means of stimulating respiration have failed; it should then be given at 100° to 104° F.)—the bath may last ten or fifteen minutes, if needed for cleansing; (5) dry the child with warm cloths, but not too hot, a mistake often made; for rapid drying, sheets of absorbent cotton are excellent; (6) powder the child with a fine absorbent powder, perhaps sterilized; an excellent one is Venetian talc and powdered starch, of each one and three-quarter ounces, crystallized carbolic acid three-quarter grams, essence of lemon *mx*; the whole surface should be evenly powdered, avoiding excess at any part.

FETUS PAPYRACEUS AND TWIN PREGNANCY.

Lichem (Centralbl. f. Gynäk.) is able to report two distinct cases where, in one instance the twins were developed from two ova, whilst in the second they were, as is usual, uni-oval. The first patient was thirty, and had borne two children. Her

mother had given birth to four children, including "pigeon twins" once; the sister twin had married and borne two children separately; the brother twin was the father of two children, not twins. But Lichem's patient herself had borne twins—sex not reported. On the present occasion labor came on at term after a very sick pregnancy. The head of a live fetus presented in the first position; but a tough, oval body like a helmet covered the occiput, and could be traced upwards to the left. This body was easily removed with the finger, and proved to be a fetus papyraceus; its funis, a flat, thin cord, was cut. One hour and a half later the living fetus was born; it weighed seven pounds and measured nineteen inches in length. Its placenta followed, showing no trace of any connection with the fetus papyraceus. There was no fever in the puerperium. On the third day the placenta of the deformed ovum was delivered after a few pains, without any "show." It was shaped like a deltoid muscle, and was tough and light. The chorion and amnion were complete; the funis, 7 1-2 inches long, was twisted and inserted centrally. The fetus was a female, with the skeleton well-formed and the finger-nails already visible. The second patient was thirty, and had been five times pregnant, bearing first a child still living, whilst all the remaining pregnancies had ended in the third month for no ascertainable reason. She did not, apparently, belong to a twin-bearing family. She was a robust woman. About the eighth month labor set in, the right hand presented. Behind the transverse presentation a fetus papyraceus was detected, lying against the sacrum on the right. Version was tried, and the breech of the living fetus brought down. Two hours after the beginning of labor the membranes ruptured, ten minutes later the fetus papyraceus was expelled in its amnion; then the breech of the living fetus came down, and delivery was successfully effected. The living child, a female, weighed 5 1-2 pounds, and measured over 17 3-4 inches. The fetus papyraceus weighed hardly 4 ounces, and measured a little over 8 inches; it was a female. The common placenta was expelled a quarter of an hour after the delivery of the perfect fetus. It weighed nearly 2 pounds, and its diameter was over 8 1-2 inches. The insertion of the perfect fetus' cord was eccentric, that of the papyraceus fetus' cord was velamentous. There were two amnia and one chorion complete. The substance of the placenta showed numerous infarcts, especially in the portion associated with the imperfect fetus; the vessels of both portions anastomosed.

INTESTINAL OBSTRUCTION IN LABOR: FATAL PERFORATION.

Champetier de Ribes and Daniel (*Comptes Rendus de la Soc. d'Obstét., de Gyn. et de Pédiat. de Paris*) sum up the literature of intestinal obstruction in labor. Out of a score of cases the cause of the obstruction was independent of the labor in all but two. Vinay, Gottscheid, and Spencer Wells have reported cases where there was a direct relation. De Ribes and Daniel's case was in a laundress aged thirty-one. She had undergone three years earlier an operation for tubal pregnancy, and becoming pregnant on this occasion she entered hospital before term, as advised when she recovered from the operation. Ten days after admission the uterine contractions began; within a few minutes the patient was seized with a violent pain of another kind in the left side of the abdomen. The temperature was 101° ; labor was very easy and spontaneous, and all seemed well. Symptoms of peritonitis set in on the third day, the signs of obstruction reappearing. On the fifth day she died; a coil of sigmoid was seen to be gangrenous; the intestine was pressed on lower down by a pelvic abscess. Purulent and fecal fluid was found in the peritoneal cavity. A strong band of adhesion passed from the fundus to the sigmoid flexure, and there were other bands; they seem to have been stretched or torn during labor, and some fecal matter set up the suppuration. The adhesions, however, were sufficient to obstruct the intestine, the colon sloughed, and general septic peritonitis followed.

COLIBACILLARY INFECTION AFTER HYSTERECTOMY.

Vautrin of Nancy (*Rev. de Gynéc. et de Chir. Abd.*) writes a graphic and instructive report of three cases of fatal infection from the bacillus coli communis after hysterectomy. The operation involved the entire removal of the uterus, the closure of the vagina from above, and abdominal drainage. The first patient, aged forty-four, died on the twelfth day; the second, aged forty-seven, on the eleventh; and the third, aged forty-nine, on the seventh. Milder cases of this form of infection are not rare, the pulse becomes quick, the temperature rises, there is slight tympanites without tenderness, dry tongue, and often jaundice. After a day or two fetid diarrhea sets in, and the patient recovers. In these cases the loose stools are found full of colonies of the bacillus coli, whilst that germ is not to be

detected in blood taken from the basilic vein. In bad cases, like the three reported by Vautrin, fever sets in early, but, as in streptococcus infection, the pulse rises proportionately much higher than the temperature, and soon assumes a very unfavorable character in every respect. Distention of the abdomen seems never absent, but it is not so extreme as in septic peritonitis, and flatus may pass in considerable quantities; indeed, the tympanites often subsides before death. Vomiting is very marked from the beginning, when it soon becomes bilious, to near the end, when it usually grows feculent. Loss of appetite is complete and thirst intense. Deglutition becomes painful, as the esophagus participates in the inflammatory changes which attack the gastro-intestinal tract. The tendency to suppression of urine is very strong, and the scanty renal secretion becomes charged with bile pigment and globules of pus. Diarrhea is the rule, and it causes improvement in the purely abdominal symptoms, but its onset implies infection of the blood, hence the meaning of collapse and death in cases incorrectly diagnosed as "septic peritonitis" after flatus has passed, distention subsided, and free action of the bowels had been established.

In all Vautrin's cases, blood drawn during life from the basilic vein was found to contain the bacillus coli. There is often a total absence of any sign of peritonitis in these cases, but the whole gastro-intestinal tract is in a state of congestion, with patches of ecchymosis, and ulceration of Peyer's patches is not unknown. It was distinct in Vautrin's second case. Naphthol and purgatives are good prophylactics in the preparation of patients for abdominal operations; the former not only destroys the bacillus, but also suppresses fermentations. When infection has set in after operation a purgative is indicated, to be assisted by enemata, if necessary. Injections of saline solution are needed, but they are often inefficacious in bad cases; and Vautrin hopes for the discovery of an antitoxin which will counteract bacillus coli infection as Marmorek's serum acts on the streptococcus.

PELVIC EXOSTOSIS; FACE PRESENTATION; FACIAL PARALYSIS.

Gröné (Centralbl. f. Gynäk) reports a labor in a primipara, aged thirty-eight, delivered at about term. The presentation was facial; the line of the face ran in the right oblique diameter, the left eye lay to the right and somewhat forward, the right eye to the left, the mouth and chin to the left and forwards. Laor proceeded slowly, and the child was delivered

spontaneously at the end of about thirty-six hours. The child breathed at once, but there was a big swelling on its face, reaching from the mouth to the eyes. Next day the swelling had diminished, then left facial paralysis was detected. There was lagophthalmia of the left eye. The upper and lower branches of the facial were both involved; no paralysis of the soft palate or uvula could be defined. The skin of the face was not contused. The paralysis slowly disappeared, and no trace of it remained at the end of twelve days. On examining the mother a big, smooth exostosis was detected behind the symphysis to the right of the middle line. Its greatest diameter was vertical. There was no narrowing of the pelvis in any other direction, and the new growth had proved sufficient to arrest, but not prevent, spontaneous delivery, and had undoubtedly caused the complication from which the fetus suffered.

PLACENTA PRÆVIA.

Drejer (Norsk. Mag. f. Lægevidensk) gives details of 49 cases of placenta prævia occurring in his practice. Nine were in primiparæ and the remainder in multiparæ. The treatment is specially considered. Ten cases were treated by plugging the vagina; this method is of no value as a hemostatic, gives no appreciable aid in the dilatation of the cervix, and is accompanied by a very great mortality and morbidity; it is both highly dangerous and inefficacious. Rupturing the membranes may be of use in a few cases of the lateral variety and early in labor. Forceps are rarely called for, and the treatment usually consists in version, either internal or by Braxton Hicks's method.

Drejer considers that the advantages of the latter form of version is very great, and that with it the danger of maternal death from hemorrhage is practically nil, although he admits that the risks to the infant are considerable. In his 49 cases there were two deaths, or 4.08 per cent.; these were both from sepsis, probably due to previous plugging of the vagina. Besides these cases there were four others that showed sepsis in the puerperium, and in three of these the vagina had been plugged. The total morbidity, therefore, was 12.25 per cent. The insertion of the placenta was marginal in 18, lateral in 16, and central in 15 out of the 49 cases. Of the infants, 39 were born alive, but of these 13 only lived some hours, so that 26 alone remained alive; 12 were dead born (2 macerated). Full details are given of each case, and the contribution covers 90 pages.

DOUBLE OVARIOTOMY IN PREGNANCY; ONE PEDICLE TWISTED.

Lowenberg (*Centralbl. f. Gynäk.*) relates a very marked case. The patient was twenty-six, and had been delivered with forceps in October, 1897, when no tumor was detected. The period was seen for the last time on August 10, 1901. Attacks of vomiting began on October 1, and lasted for several days. There was a tumor, which did not fluctuate, in the right side of the abdomen, reaching to the umbilicus, and a tense cyst filled Douglas' pouch. The body of the uterus could not be defined separately. Milk exuded from the nipples on pressure. The operation was performed on October 4. The intestines were distended with gas, but no signs of peritonitis were present, though there was a little free serum. A livid dermoid tumor of the right ovary was exposed; its pedicle was twisted to the right. The uterus was deflected to the left, whilst its long axis was exaggerated by traction; it had reached the tenth week of pregnancy. The left tumor was drawn out of Douglas' pouch; it was also in part dermoid. The operator purposely left a piece of normal ovarian tissue behind, with the tube and meso-salpinx intact. This piece did not contain a corpus luteum of pregnancy, nor could any be detected in connection with either of the tumors. On the thirty-fourth day after the operation the patient was in good health, and no symptoms of abortion had been observed. There is, however, no further history of the course of the pregnancy.

OVARIAN TUMOR ARISING IN ADRENAL REMAINS.

Pick (*Beit z. Gynä. u. Geburtsh.*) has written a long and valuable essay on Marchand's adrenal relics and the new growths which arise from them, in relation to researches on ovarian tumors rich in glycogen. It is of special interest in respect to Dr. A. E. Eastwood's recent communication on the occurrence of pelvic tumors arising in adrenal remains. Ludwig Pick's article is largely based on a case where Theodore Landau operated on a woman, aged fifty-one, with prolapse of the posterior vaginal wall and a pelvic tumor to the right of the uterus, of the size of a fist. A vaginal operation, including removal of the uterus, was performed. The tumor, which was very firm and had been diagnosed as a fibroid of the broad ligament, was encapsuled in that fold. It was made up of numerous small cysts, some very minute, with a central cavity

produced by disintegration of tissue. A remarkable spherical body, a new growth in the corresponding ovary, was in a state of necrosis. The opposite ovary was normal. The microscopic appearances of the tumor are minutely described, and Pick concludes that it arose from a Marchand's accessory adrenal in the hilum of the ovary.

TREATMENT OF REPEATED ABORTIONS AND PREMATURE LABORS.

R. Lomer (*Zeits. f. Geburtsh. u. Gynäk.*) speaks highly of the treatment of cases of repeated abortions and the premature birth of dead infants with potassium iodide. Not only would he give the drug in all instances of suspected syphilis (when it is always "better to ask little and treat actively"), but also in the cases of maternal kidney disease with hemorrhages into the placenta. Further, he would give the iodide also in cases of endometritis in which there was anæmia and a brownish discharge during pregnancy; he would then combine it with Bland's pill. The two drugs ought to be given during the whole course of the pregnancy. Several illustrative cases are described in which the habit of aborting or of giving birth to dead fetuses seems to have been checked by the iodide and Bland's pill. The iodide acts as a specific in the syphilitic cases; it has a good influence upon the pregnancy nephritis; and it is a resorbent in the endometritis cases. It prevents the rupture of the vessels in the placenta.

SIMULTANEOUS TUBAL AND UTERINE PREG- NANCY.

The *Centralbl. f. Gynäk.* reports two cases published in Russian journals in 1901. Kochanoff of Astrakhan observed this condition in a woman, aged thirty-one, a 5-para. Her previous pregnancies and labors had been normal. Two months after missing a period she fainted, and there was bleeding from the genitals. A tumor developed, rising above the pubes. About the end of the third month Kochanoff diagnosed tubal abortion at the second month, with escape of the ovum into the peritoneal cavity. An operation was performed which confirmed the diagnosis, but the uterus was also found pregnant, apparently about the fourth month. Probably the pregnancies were simultaneous. Twenty-three days after the removal of the tubal sac the patient aborted; the uterine ovum had, according

to appearances, reached the fourth month of development. Recovery was speedy.

Warnek operated on a woman, aged thirty-four, who had been eight times pregnant, including four abortions. Violent abdominal pains set in twenty-five days after a period, and lasted for a few days, then steady, though slight, hemorrhage from the vagina was observed, and lumbar pains occurred. The uterus then felt enlarged and tender, the appendages thickened. Three weeks later free uterine hemorrhage set in, with severe abdominal pain. The left tube was then found to bulge downwards into Douglas' pouch. The bleeding went on for a month, and could only be stopped, it is stated, by hydrastinin. At the beginning of the fourth month the uterus was yet larger, and now there was a tumor on the right (sic) side of the pelvis. About a fortnight later fetal movements and ballottement were detected; the head could be felt through the anterior vaginal vault. The gradual development of the pregnancy did not make its nature clearer, so a few weeks later an exploratory operation was performed. The uterus was pregnant, and the gestation had reached the sixth month. There was a very evident tubal abortion on the left side. It is not stated whether the tubal sac was removed, but it is noted that the patient was delivered at term of a healthy boy. Warnek also notes that the uterine pregnancy was not interrupted by the tubal abortion followed by six weeks bleeding, nor by frequent hot irrigations, and strong doses of ergot, ergotin, hydrastis, and hydrastinin, nor by the exploratory operation.

DECAPITATED FETUS AND RUPTURE OF THE UTERUS.

Durlacher (*Deut. med. Woch.*) reports a case of difficult labor, illustrative of the disastrous effects of applying a wrong treatment. A primipara was taken in labor on November 7, 1900, at 2 a. m., and on the 9th, at 1 a. m., he was asked to go to her assistance, with the remark that two practitioners were already there. The fetus itself was born, but not the fetal head. The history given on arrival by the practitioner in charge was that the membranes had ruptured in the early hours of the 7th, but no presentation could be felt. On the 8th the vertex was felt above the brim. Attempts were made to deliver the fetus with forceps. As this failed, at 7 p. m. version was performed, the fetus still being alive, and as the head would not follow such forcible traction was employed that it tore off and remained in the uterus. The nurse stated at a later date that after two hours of unavailing manipulation the

practitioner decapitated the fetus. Durlacher found the patient with an anxious expression, extreme pallor of face, and some cyanosis of lips, dyspnoea, vomiting, and yawning. The abdomen was very tumid. The pulse was thready. On examination he found the stump of the neck, the chin and the face of the fetus inside the uterus, while the vault of the skull protruded through a rupture of that organ. There was much blood clot in the vagina. The placenta was still slightly adherent to the fundus. This was removed without difficulty, and an attempt was made to bring down the head with a blunt hook introduced into the mouth, but the jaw gave way.

As a last resort he performed laparotomy. He had to wait, as the patient was in a very collapsed condition, and indeed he believed that she was dying. A few hours later—twenty-nine hours after the rupture of the uterus—he performed the operation, but she sank and died a few minutes after its completion. The fetal skull gave the following measurements: Long diameter, 3 inches; the largest transverse diameter, 2 1-2 inches; the small transverse diameter, 2 1-3 inches. The pelvic measurements were: Dist., spin. ill., 6.6 inches; dist. crest. ill., 6.4 inches; diag. conj., 2.7 inches; conj. vera, 2 1-3 inches. The fetal skull was very hard and allowed of little molding.

Durlacher considers that although a true conjugate of 2 1-3 inches allows at times of a spontaneous birth, the condition of the patient rendered it dangerous to wait for Nature to help the patient. He puts aside the question of application of forceps as wrong treatment, and he also considers that version was attended with too great a risk of rupture to be justifiable. The correct procedure, he says, without doubt, was craniotomy, for the surroundings and the length of time that labor had already lasted almost robbed Cæsarean section of its chance of obtaining a live child and still preserving the life of the mother.

Discussing the case at the stage after version been performed, he says that a short attempt with forceps to deliver the after-coming head would have been justifiable, and this failing, craniotomy should be then performed. Criticising his own procedure, he states that he felt impelled to make a desperate attempt by performing laparotomy, even under the most adverse circumstances, although he realized that the attempt was little likely to be attended with success.

PUERPERAL EMBOLISM.

Voigt (Centralbl. f. Gynäk.) reports 3 cases of which 2 recovered: (1) Patient, thirty-nine, a 4-para, went into a hos-

pital at Dresden for flooding in the eighth month of pregnancy. Placenta prævia was detected, and the finger could be passed into the os. No pains were present, and it was believed that rest would be sufficient to stop the hemorrhage; but for five days flooding continued, so that it was determined to bring on labor, especially as the os had become wider. The placenta (central) was broken through with two fingers, version practiced, and one foot drawn down. The flooding at once ceased and strong pains set in; at the end of three-quarters of an hour the child, slightly asphyxiated, was delivered. The uterus contracted well. Within an hour after delivery a marked attack of embolism occurred with characteristic pulse and dyspnoea. Stimulants were used, and the symptoms subsided in nineteen hours.

On the fourth day another attack occurred, a pulmonary infarct developed, with hæmoptysis. On the tenth the symptoms recurred; the bloody sputum contained elastic fiber. The dyspnoea and weak pulse did not subside entirely till the twenty-fourth day, and the patient was not discharged till the thirty-seventh. (2) In the second case the forceps, turning, and cranioclasty were practiced. One hour and a half after delivery an attack of embolism occurred; it subsided in twenty hours, but another attack took place on the second day. (3) In this case there was nothing more than lingering labor from uterine inertia, and delivery was spontaneous. An attack occurred seven hours later; it was temporarily relieved by stimulants, but within four hours another attack set in and proved fatal.

SYMPHYSEOTOMY AND CÆSAREAN SECTION.

A. Martin reports the following case (*Deut. med. Woch.*): A girl, aged nineteen, was admitted into hospital on April 13, 1901. She was within two weeks of "full time." Martin had determined that her pelvis was contracted from the following measurements: Dist. spin. il., 10 1-2 inches; dist. cres. il., 11 3-4 inches; dist. troch., 12 1-2 inches; rt. trans., 8 3-4 inches; lft. transv., 8 3-4 inches; ext. conjug., 7 1-4 inches; diag. conj., 4 1-5 inches; circumf. pelv., 34 inches. Labor began on the morning of April 28, with a first vertex presentation. After twelve hours the bag of membranes appeared at the vulva; and the os was fully dilated, but the head had not engaged the brim of the pelvis. Early in the afternoon of the following day the temperature of the mother rose to 101.8°, and the fetal heart rate quickened to 180. The head was still above the brim.

All manual attempts to excite it to engage failed, and the forceps also failed. Martin, therefore, proceeded to divide the symphysis pubis, which was easily accomplished. The forceps were applied, but in spite of 1 1-4 inch separation of the symphysis, and loud cracking noises of the sacroiliac synchondroses, the head could not be brought down. In order to save the child he therefore performed Cæsarean section. The uterus was brought out of the abdominal wound in a few minutes, and Martin incised the fundus transversely between the tubes. A male fetus was delivered without much difficulty, the placenta—which was attached to the fundus—was removed, the uterus was examined and found intact, and the fundus closed with continuous catgut sutures. The symphyseotomy wound was attended to after the laparotomy wound was closed. He contented himself with two strong ligatures through the periosteum, and the usual skin sutures.

The fetus was much asphyxiated, and although a few spontaneous respiratory movements followed artificial respiration, he could not be restored. He weighed 8 lb. 4 oz. The skull showed excessive ossification, want of molding, and measured transversely 2 and 2 1-2 inches and 14 1-2 inches in circumference. The mother recovered well. In discussing the case, Martin considers that this case can serve as a lesson that unless the head has entered the pelvis symphyseotomy is useless. He further calls attention to the advantages of incision of the uterus through the fundus in Cæsarean section, instead of the usual anterior wall incision.

PRIMARY DECIDUOMA MALIGNUM OF LABIUM AND OF VAGINA.

Wehle (Centralbl. f. Gynäk.), in a discussion on a case of uterine syncytioma, declared that quite recently he had operated within two months on two cases of syncytioma in the genital canal below the level of the uterus, which was not involved. The first patient was aged forty-six, and had been delivered a seventh time six months before observation. Within fourteen days a swelling developed in the right labium; it was as large as a tangerine orange when examined, and already breaking down on its inner aspect. Eight days after careful excision recurrence occurred, causing death in five weeks. The second patient, aged thirty-nine, was delivered of her sixth child half a year before operation. Free sanious discharge had continued for five weeks. A soft mass as big as an orange was detected, attached to the posterior vaginal wall. On moving it free hemorrhage was set up. The tumor was removed by

means of the cautery and sharp spoon, then the whole of the vaginal wall was found to be softened and lacerable. Ten days later recurrence was detected, and the patient was on the point of death when the report was published.

DERMOID CYST OF BREAST.

Rocher (Rev. Mens. de Gyn. Obst. et Ped. de Bordeaux) reports a characteristic case of this rare disease. The patient was fifty-three. She had noted a small lump on the outer side of the right breast when she was eight years old; it was of about the size of a grain of maize. At twenty it had reached the size of a walnut; at forty it was as large as an egg. Between twenty and twenty-six her three pregnancies occurred. Neither they nor the subsequent lactation had any effect on the tumor. When forty-three the patient received a blow on the tumor; then for the first time it became a little painful, and the skin grew red and the veins slightly dilated. No fluid ever issued from the adjacent nipple. Rocher found the patient robust and free from cachexia. The swelling had reached the size of a fist. It lay in the upper outer quarter of the breast; fluctuation was very indistinct. The right axilla was free from enlarged glands. The breast was removed; there was no adhesion to the pectoral muscle. The cyst lay surrounded by fat. Its wall, though very thin, was quite distinct and uniformly white. It was covered externally with indented lines simulating cerebral convolutions, and corresponding to markings on its inner aspect. The contents, faintly acid in odor, consisted of grease containing masses of epidermis; the inner wall was true epidermis, without hairs, sebaceous or sudoriparous glands. There was no hair, teeth, or bone, but islets of adenoid tissue lay in the substance of the wall externally.

DELIVERY OF A TUBAL MOLE PER VAGINAM.

Bröse (Centralbl. f. Gynäk.) exhibited in May, before a Berlin Society, a deciduum from a tubal sac. He had performed posterior colpotomy, drawing the gravid tube down into the vagina. Then he pressed out the tubal sac till the mole came out of the abdominal ostium. No bleeding followed this maneuver, therefore the tube was not removed but pushed back into the peritoneal cavity. The opposite tube was inspected. Its ostium was found closed by adhesions; it was therefore opened up and its edges sutured all round, in fact salpingostomy was performed. The patient recovered.

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TREATMENT OF UTERINE DISPLACEMENTS.

BY DE WITT G. WILCOX, M. D.

Notwithstanding the amount written and expressed relative to uterine displacements, there remains always a further word to be added. My paper is more for the purpose of adding this additional word than an exhaustive treatment of the subject. Why are our American women to-day suffering so generally with uterine displacements? This is a question which the obstetric and gynecologic surgeon must endeavor to answer. As our American women are rapidly losing their oldtime prestige as mothers of large families, we cannot charge frequent pregnancies as being the chief causative factor in the production of uterine displacement in the American woman.

We do know that a uterus normal in size is rarely displaced and still more infrequently prolapsed. We know still further that an inflamed, enlarged, or subinvolted uterus has taken the first step toward a displacement and that such a uterus only awaits a certain number of accompanying conditions to render the track clear for a complete procidentia or exaggerated retro-displacement. Hence, if we find the cause

producing an enlarged uterus, we have made a move in solving the above-propounded question. Frequent abortions are much more prone to leave a uterus subinvolved than are an equal number of normal pregnancies; for many reasons; first, the patient is not likely to receive as careful attention following an abortion as she is after labor: frequently she assumes the care of her own case as she is ashamed or afraid to call her physician; consequently, she gets up too soon and the uterus has not had the full opportunity to become involuted. Second, it is a pathological condition and nature is not fully prepared to begin at once the reparative process, such as follows a normal confinement. Hence, the muscle-cell degeneration and atrophy which produced the rapid and complete contraction of the uterus following a normal labor is here absent, and an enlarged uterus forever remains. Again, the continued and prolonged practice of preventing conception is quite likely to lead to a chronic congestion of the uterus and thus lay the foundation for a displacement. Thus does the woman, who through design or misfortune escapes the duty of bearing children, render herself liable to that painful and pitiable state of semi-invalidism resulting from uterine displacement.

While the majority of cases of uterine displacement occur in women who have borne children, yet a certain percentage of these cases could be averted by a little timely and skillful attention given them at the early stage of the disorder. Given a woman who has an enlarged uterus, whether through chronic inflammation or subinvolution, and we have a goodly start toward a retro-displacement. Sooner or later the long, heavy fundus which crowds its way up high in the pelvis will be pushed over backward and forced downward because of the intra-abdominal pressure. The uterine ligaments have been supporting this overweighted uterus for months, and now they begin to weaken and allow the uterus to settle. If there be added a constipated habit the pressure within is increased, and ere long the fundus is well settled into the hollow of the sacrum. If any infection should now find its way through the tubes and even a slight pelvic peritonitis occur, there will in all probability result certain adhesions which tend to hold this displaced fundus firmly in its natural position. To the average woman

such a condition can result only in constant discomfort, nervous irritability, reflex irritation, and ultimate semi-invalidism.

Again starting with an enlarged uterus, overstretched ligaments, intra-abdominal pressure, and a constipated habit, we have all the conditions ready for the beginning of a prolapse. If, unlike the former case, we have a torn or relaxed perineum, a long, conical cervix, and an occupation which keeps the patient long upon her feet, there is nothing but the abolition of the law of gravitation which will prevent a complete procidentia. What, then, can we do to prevent the occurrence of these displacements, and how can we cure them after they occur, are the practical question which present themselves to us. If an enlarged uterus is the first requirement of a displacement, obviously our task begins in seeking to prevent such enlargement, or, finding that it has already occurred, to employ the best means of reducing it to a normal size before it has begun to settle into a displacement.

First, as to the now child-bearing wife. Inform her fully and seriously as to the gravity of self-induced abortions; the penalty from the physical side will frequently frighten her when the moral side has no effect. Teach the woman who is studiously avoiding pregnancy by the use of medicated wafers and incomplete sexual congress, what probable physical fate awaits her. Much can be done to avert subinvolution following parturition if the obstetrical attendant is rigidly careful with his patient. With the wealthy class of people there is too generally an aversion not infrequently backed by disability to nurse the babe; this failure always has its effect upon the contracting uterus, and what would undoubtedly be a well-contracted and perfectly involuted uterus, under the stimulation of a nursing babe, becomes a flabby, indifferent, and subinvoluted uterus. Now add to that a tight abdominal binder and the enforcement of a dorsal decubitus for three weeks, and the chances are very favorable for retro-displacement. I am of the opinion that the parturient woman should not remain prone upon her back for more than two or three days following her delivery, and that, after such a time, she should change frequently from side to side. With patients who have previously shown a tendency to subinvolution, a slight displacement, or a little prolapse, the

greatest care should be exercised at the parturient period to prevent a more pronounced degree of the same difficulty; indeed, then is the best time to induce a cure of what has already taken place, and a good long rest in bed, with frequent changes of position, is one of the best factors in such a cure. Three or four weeks is none too long to remain off the feet. In no case should the obstetrical surgeon allow his patient to get up and begin her duties until he has satisfied himself of the exact condition of the uterus, its position, length, and sensitiveness, and, unless normal in those essentials, she must undergo further rest or treatment. I fear there is too frequently an indifference on the part of the obstetrician to these particulars, but the truth of the matter is forced very strongly upon the gynecologist some years later, when he is called to treat such cases and learns by inquiry when the trouble first appeared. Metritis following confinement will invariably leave a uterus enlarged. Those severe and well-nigh fatal cases of septic metritis produce such changes in the uterus that it requires careful attention for many months afterward to bring it down to anything like normal size. But if proper treatment be not instituted and persistently executed, the chances are greatly in favor of a lifelong malady. It is here that a careful, but thorough, curettage is absolutely essential. No uterus can ever hope to attain a normal size so long as it holds a hypertrophied mucous membrane filled with plastic exudates. Long rest in bed, glycerin tampons, occasional, but not too frequent douches are great aids in accomplishing a cure.

I am of the belief that when an enlarged uterus is found due to any cause, whether it shows a tendency to displacement or not, it is wise to institute treatment for its reduction; for by so doing we are taking strong preventive measures against displacements. Such treatment consists of curettage, glycerin tampons, regular bowel movements, daily exercise, and light gymnastics. I need not add the remainder which every gynecologist fully recognizes, that a lacerated cervix should be repaired and every ruptured or relaxed perineum should be reunited. Indeed, all or any treatment to the uterus will be of little avail if these latter defects are allowed to remain uncorrected. So much for the prevention of displacements.

Now for the treatment after such has become established. Antelexions are to be considered entirely distinct from the retro-displacements, because they are undoubtedly due, in the majority of instances, to an undeveloped state of the uterus, and are in consequence a congenital defect. Here the treatment is largely hygienic. I have found in adult women that a cup pessary gives much relief in this condition. There is a curious fact relative to the antelexion in married women and that is the tendency for such women to be sterile. I recall two cases of that nature wherein the patients had been married some ten years without children, and the wearing of a cup pessary for a few months so overcame the difficulty as to enable them to become pregnant.

Treatment of Retro-Displacements.—In the milder form of cases, free from adhesions, tamponade, the knee-chest position, electricity, and uterine massage may effect a cure. In these cases the pessary can be used to great advantage, if managed rightly, which means not to allow the patient to wear it too long. In exaggerated cases, especially where adhesions have formed resulting from an oldtime salpingitis or pelvic peritonitis, there is to my mind but one method of cure, and that is ventral suspension or fixation, according to circumstances. Of this I shall speak later. The Alexander operation has not, in my opinion, fulfilled the expectations. There are so many conditions upon which it is dependent for success. First, the round ligaments when found must be strong enough to sustain the traction made upon them and then they must not give out again, as they did originally when they allowed the uterus to become displaced. Second, they must not give way after they are attached in their new position. This operation is applicable only in the less severe type of cases and fails entirely when adhesions are present; neither does it allow the opportunity to examine the uterine adnexa, as does the ventral.

In prolapse of the uterus we have an efficient and safe method of cure which transforms a miserable sufferer into a happy woman. Certainly it is a pitiable state for a woman fifty or sixty years of age to go about with her uterus hanging outside her body. This condition is due to a combination of causes: a ruptured or relaxed perineum, a large uterus, a long,

conical os, overstretched ligaments and vagina due to frequent pregnancies, intra-abdominal pressure resulting from abdominal obesity, intestinal indigestion, and straining at stool. One of the early indications of approaching prolapse is the appearance of a rectocele or cystocele. In the absence of a strong perineal backing the rectum has lost its support, hence the effort at stool tends to push the posterior vaginal wall downward and forward and a rectocele is established. With this stretching of the vaginal wall the uterus is pulled down and soon the anterior vaginal wall descends, bringing the bladder with it and thus a cystocele is established. Hence, in treating a prolapse, the first thing to correct is the perineum; with that unrepaired all other measures fail. Next, look to the cervix. If that be long and conical, amputate well up to the vaginal vault; especially is it wise to do this in women past the menopause. Next, correct the rectocele or cystocele by an anterior or posterior colporrhaphy. But the most essential of all is the suspension or fixation of the uterus to the abdominal wall. This operation is so simple, so quickly performed, so devoid of all danger, and so extremely satisfactory withal, that to my mind it has become the ideal method of treating all cases of exaggerated retro-displacements, partial prolapse, or complete procidentia.

I shall not go into the details of this operation further than a few points which are essential to its success. First, the abdominal incision should be as low as the bladder will allow and should not be over two inches in length. Second, the uterus should be brought so well forward that it becomes slightly anteflexed, and thus the fundus, or even the posterior surface, rather than the anterior surface, should be sewed to the abdominal opening. Third, the sutures (silkworm) should pass through the uterine muscular substance and through the abdominal wall, together with a number of catgut sutures introduced through the abdominal and uterine peritoneum. The operation is almost entirely devoid of risk and followed by very gratifying results; at least such has been my experience with the same. The objection raised to it on the score of interference with future pregnancies is of no weight. The union between uterus and abdominal wall is peritoneal only in

the ventral suspension operation, and when called upon to "give" as in a developing pregnancy, this union simply stretches out into an artificial round ligament which does not seem to loose its grasp after the termination of labor. In older women the fixation method is better because it will hold the uterus for all time, even though the patient has a procidentia and is obliged to do heavy manual labor.

Another procedure is that of vaginal hysterectomy. This may be satisfactory in some few cases, but I doubt its practicability and its necessity. My experience has taught me that the rectum and bladder will prolapse just as badly after the uterus is out as before. Hence, I do not employ it. I have been able to examine by abdominal section two of my patients upon whom I had previously made the ventral suspension operation after each one had been confined, and found the uterus in a good position with the adhesions still intact. Another young woman upon whom I made the operation one year ago has just been confined two weeks ago. She went through her gestative period with perfect normal conduct and her confinement was unusually easy, for a primipara. An examination made yesterday showed the uterus to be in a normal position, whereas previous to the operation, the retro-displacement has been so great that the fundus was wedged well down against the rectum.

In summing up, I desire to make clear the point that many of the exaggerated cases of uterine prolapse and retro-displacement are preventable by careful attention to the parturient woman, and by a healthful manner of living on the part of the wife who seeks to avoid bearing children.

Second, a partial prolapse or an initial displacement may be effectually checked by rendering the uterus normal in size and repairing all lacerations and ruptures.

Third, the worst possible cases can be effectually cured by means of the ventral suspension operation.

GESTATIVE AND PUERPERAL CONDITIONS, AS
AFFECTED BY SCARLATINA.

BY JOHN C. SANDERS, M. D.

Of all the varied zymotic maladies possible to the gestative and puerperal states, there is none more obscure in its nosology or ambiguous in its symptomatology or problematic in its diagnosis, or more freighted with peril in its issue, than scarlatina, which has been chosen as the theme of this brief paper. Scarlet fever may attack either the gestative or puerperal state. We will consider the subject in this order:

First, as declaring itself in the gestative state. If the exposure to the infection has occurred in the early months of gestation, the attack follows not much beyond the average period of incubation in the non-gravid state, and predominantly is inductive of abortion. That this should occur doubtless depends on two causative conditions; one is the exceeding high temperature of the maternal blood, for no other fever carries so high a temperature either in adult life or childhood, and this alone would very surely compromise embryonic life; and another is the doubtless direct toxic effect of the virus on the embryo, for it admits of no question that the embryo becomes infected through the virus of which the mother's blood can be the sole bearer.

The attack is inaugurated most universally with a severe chill, and, with or without more or less severe anginal symptoms, early declared fever ensues, characterized by exceedingly high temperature, carrying the mercury up to $103\ 5-10^{\circ}$ F. to $104\ 5-10^{\circ}$ F., and all this within the period of twenty-four hours. In case anginal symptoms accompany, the attack is more often imputed to cold, so called, or some special and extreme meteorological changes; the fever will range on hardly longer than thirty-six or forty-eight hours when abortive phenomena ensue with a declared rash on face, hands, and arms. The discharges from the womb soon became tainted, either patent or detectable only on close observation. The rash runs down over the body and limbs and feet, not uniformly in one unbroken blush, but in detached areas. As the

rash extends, the febrile phenomena continue with increased intensity, complicated and blended with the metritic irritation and distress of the abortive act. The intense blood heat, the thirst, the dry tongue and mouth, the burning or stinging or itching rash, the uterine suffering, the offensive discharges (lochial or otherwise), the vigilance and restlessness, and more or less delirium, make the case extreme and critical. Here will arise, if not before, the problematic question of the greatest import. Is this rash, faintly outlined it may be, and occurring not in a continuous blush, but in detached areas, zymotic from scarlet-fever infection, or is it the skin-discoloring of septic poison?

Is the case, in brief, one of zymotic or non-zymotic puerperal fever?

There is demanded the most searching and exhaustive inquiry into the history of the patient and family with the view to determine the exact provocation of the attack; whether it was autogenetic or heterogenetic; for the infection may have run through very circuitous and unsuspected routes.

Apart from the presumptive evidence of a clearly defined tracery of exposure to scarlet-fever infection, there are points of differential diagnosis that will contribute to the solution of the problem.

1. In scarlet-fever infection the onset and progress of the puerperal fever are more violent and carry a higher average temperature.

2. The anginal symptoms, if any accompany the case, are more extreme than what pertains to a non-specific sore throat.

3. The tongue becomes red and dry much sooner and more papillary than in septic fever.

4. The rash rarely appears until after the abortive act is completed, so far as the loss of the embryo is concerned, but appears earlier than the rash of septic infection would declare itself.

5. The rash or skin discoloration is a different rash and, closely examined, is found more diffused and miliary in character, which is not true of septic staining of the skin.

Second, as declaring itself in the puerperal state.

If the exposure to scarlet fever occurs in the later months of

gestation, the infection may remain and it is prone to remain a latent, dormant force until labor at full term is declared and completed, but immediately or soon thereafter will burst forth in form of a declared puerperal scarlet fever. This incubation may have an extension back away to the beginning of the eighth and even to the seventh or seventh and one half month, and give no evidence whatever of itself for this protracted period, as has occurred in a case of recent experience of mine. The mother had been called upon by a neighboring friend at this latter date of her gestation, whose sister, very ill with scarlet fever, she had visited and nursed. This was in her case the only possible source of infection, as was determined by the most searching inquiry. For nearly two months the infecting virus had remained in dormant incubation and manifested its true character not until twelve hours after delivery, when there was first noticeable a rash on the mother's face, which gradually extended to her neck and chest, arms, wrists and back of hands, and in twenty-four hours the entire body became stained with the rash. The fever was inaugurated with the rash and intensified with its extension, carrying the temperature to $104.5-10^{\circ}$ F. in twenty-four hours, with all its ordinary phenomena. No anginal symptoms appeared. The itching and burning of the skin were extreme. Her lochia became exceedingly tainted, her milk fully formed but rapidly disappeared, though it partially returned after established convalescence, which took place at the expiration of the middle of the second week. On the morning of the second day her babe, fair of skin at birth, showed the same rash phenomena with the mother, and became covered from head to foot; its fever gradually increased as the rash progressed. The babe survived and became convalescent soon after the mother's restoration to normal temperature. The exfoliation in the two cases exceeded anything I had ever before seen.

The problematic question in this case was, what was this fever? Was it septic or zymotic?

Here was a woman apparently perfectly well, a primipara at the close of her gestation, and whose labor was in every way natural, who at the end of twelve hours gave evidence of febrile symptoms and whose face showed stains of rash, but

at the end of thirty-six hours carried a temperature of 104 5-10° F., when lochia became checked and very offensive, and when breasts collapsed with entire loss of milk. Anxiety and alarm gathered around the case, and the matter of diagnosis, as well as prognosis, became serious and embarrassing. Reliance was put upon the diagnostic points before made, but one of the factors was wanting. There had been no conscious exposure. It was not until several days after the case had been designated scarlatina that the fact was recalled of the neighbor friend's ill-timed visits, while nursing her sister, very ill with the malady. This at once poured a flood of light upon the case and removed all ambiguity.

One object of this brief paper is to awaken a caution, which I'm convinced has been too little heeded by the profession at large as to the exposure of the gestative woman to this very common zymotic malady, freighted as it is with such grave suffering, such embarrassing problems of nosology and diagnosis, and such imperiling possibilities both to the mother and her embryo or child. Against any such exposure the gestative woman should be guarded to the limit of every possibility.

Another object is to bring into prominence the surprising possibility of so protracted and so dormant incubation of the infecting virus, as the full appreciation of this possibility may furnish a key to some puerperal histories that carried to their issue, whether of resolution or death, unsettled questions as to their exact character.

Another object is to elicit expressions of opinions with the view of determining what shall be regarded as indisputable diagnostic evidences by which we can unerringly differentiate between the rash of true scarlatina as affecting the gestative and puerperal states, and the rash that is contingent upon septic poison.

HEART DISEASE DURING PREGNANCY.

BY D. J. SINCLAIR, M. D.

The subject of heart disease is very interesting to the obstetrician from many points of view, particularly in connection with marriage, pregnancy, and labor. Should a woman with valvular cardiac disease be allowed to marry? I certainly think so, with rare exceptions. In the majority of cases the physician is not consulted in the matter. Frequently the refusal to sanction would make no difference in the course of events.

I recall one case where a young woman was married contrary to the advice of her physician; when pregnancy occurred the young bride, fully realizing the serious aspects of her condition, asked her physician to produce an abortion. On consultation, owing to the absence of any serious symptoms, it was deemed inadvisable to do so. This woman is now the mother of three children, aged eight, six, and three respectively, and is enjoying fairly good health.

In naming the exceptional symptoms which should change the answer, from yes to no, I cannot do better than quote from Hanfield Jones, "If there are any serious symptoms of cardiac disturbance present, or attacks of dyspnoea, breathlessness, palpitation on exertion, hemoptysis, marriage should not be sanctioned." I myself can see no reason why a young woman having valvular lesion of the heart, who can carry out her social and domestic duties without ill health, should be prevented from marrying. Although I freely admit that child-bearing is likely to aggravate the danger connected with the heart disease, yet I cannot help feeling that the dangers to the woman with a heart lesion during gestation and labor have been too largely overestimated.

The question is often asked, which of the heart lesions is the most serious? It is generally acknowledged that mitral stenosis is the most dangerous condition. The rarer conditions of aortic stenosis and aortic regurgitation are dangerous, but not so much as mitral stenosis. Mitral regurgitation alone is not, as a rule, a matter of so serious import.

How does pregnancy affect the system in cases of heart disease? It disturbs compensation and the backward pressure may overload the pulmonary circulation, causing serious thoracic complications and secondarily interfering with the functional activity of other organs, especially the liver and kidneys. Sometimes the disturbance in the working of the various organs causes abortion, although happily not so often as has been generally supposed.

In one case, attended four years ago, with mitral stenosis, the labor was normal. After the birth of this child she became pregnant, at intervals of two years. The second last she passed through gestation and labor without the least discomfort in any respect; in fact, the labor only lasted one hour. The last, however, which took place two weeks ago, was nearly the means of losing her life, and had it not been for the prompt use of oxygen, I believe I should have lost my patient. In this case, from the time gestation was advanced five months she began to suffer from violent dyspnoea. In fact, so violent were the attacks that, at one time, a consultation was held with the view of bringing on labor.

It was formerly thought that the loss of balance, throughout the system, from heart disease was apt to cause that form of general toxæmia which produced eclampsia, but, although albuminuria and dropsy are common complications, I am doubtful about the frequency of convulsions in such cases. In some cases pregnancy seems to produce no ill effects whatever. Darkin says "that sometimes patients seem to improve during pregnancy, owing to the hypertrophy of the heart natural to this period." This is quite in accord with the opinion of the profession generally. Some of my cases, especially those having mitral insufficiency, have seemed better during pregnancy than they were before. I believe, however, that in the majority of cases, after labor, and especially during lactation, they have lost ground.

Treatment during gestation and labor will vary much with each individual case. I do not believe that it is justifiable to advise against marriage, but I do believe it very essential that the patient should be very closely watched during the period of gestation. I would give the patients rest, yet they must have

plenty of open-air exercise. My management of these cases is as follows: Keep the patient at rest without going to the extreme; a certain amount of fresh air is demanded. Enjoin absolute rest, if serious symptoms appear, and if the equilibrium of the circulation is disturbed as shown by the ordinary pulmonary symptoms. I believe the liver and kidneys, if necessary, with cathartics administered in the form of effervescent phosphate of soda in large quantities of water. Indeed some of my friends use the saturated solution of mag. sulph. given continuously with the best results, and regulate the diet. I generally allow the patient all the milk she can take. Have the patient select her diet from the following: Milk, buttermilk, koumiss, tea, lemonade, mineral waters, fish, fruits, spinach, lettuce, cabbage, cauliflower, celery, radishes, rhubarb, peas, beans, corn, carrots, onions, bread, breakfast rolls, toast, tomatoes, oatmeal, rice, tapioca, fowl, or any kind of meat twice a week.

Avoid meats other than those recommended, also meat broths, eggs (although I frequently give eggs), cheese, asparagus, sweet potatoes, turnips, beets, sweets, and plenty of plain water.

Give a daily warm bath to keep the skin acting properly. It may sometimes be advisable to induce abortion. I think this is seldom necessary. If failure of compensation occurs early in pregnancy, as shown by serious pulmonary congestion and marked dyspnoea, place the patient on appropriate treatment, and if she becomes worse instead of better, then operative interference may be deemed advisable. If she is a Roman Catholic she will in all probability refuse any such procedure. It is always well to consider the history of former pregnancies; one might think she would not survive a subsequent pregnancy. What would I do in this case, were she to come to me again two or three months advanced? I do not think I would advise the induction of abortion, certainly not unless grave symptoms were present. Hanfield Jones and others have pointed out that women go through early pregnancies with comparatively little danger. But each succeeding pregnancy causes a certain deterioration of the heart muscle, which is more or less permanent, consequently the danger of cardiac insufficiency becomes

greater with each successive pregnancy. The prognosis has varied, as given by most authors, from ten to sixty per cent. I believe that this is altogether too high a mortality rate. Is this rate not due to a time when asepsis was little or seldom practiced in the lying-in room, or to those cases in which compensation of the heart muscle was nearly destroyed? On looking up the later statistics I find the rate, as given by the different authors, as varying from six to twelve per cent. since the advent of Listerism. I will divide the treatment of these cases into two stages:

First, the treatment during gestation. The drugs I have found generally indicated in the majority of cases have been digitalis, strophanthus, convallaria, strychn., and in two bad cases I derived the most benefit from morphia sulph. (1 x) in 5-grain powders given two or three times a day, which relieved the dyspnœa. Apis, podoph., leptandrin to relieve the kidneys and liver.

When labor comes on I encourage it as much as possible, without using force. I do not hesitate to administer chloroform in these cases, as I believe it only relieves the danger of the dyspnœa, by relieving the patient's straining. As soon as the first stage is over, I apply forceps and deliver. At the commencement of labor give strophanthus, digitalis, and strychnia as heart tonics.

Where the patient cannot lie down it may be impossible to confine her in any other position than the upright, as is used in Italy. This has been the case once in my experience. I believe these cases more than any other demand the administration of chloroform. In the administration of the anæsthetic extreme caution should be exercised.

The most difficulty rests with the respiration, which is often at the rate of from forty to sixty per minute. The pulse is correspondingly increased. In my experience these symptoms do not abate on the completion of labor. I believe that the free hemorrhage, unless too great, is often a benefit, as it relieves the right heart. I would apply the abdominal bandage above the uterus and gradually tighten it as delivery takes place. Be careful not to apply the bandage tight enough to interfere with the contraction and relaxation of the uterus, thus interfering

with free flowing. As the most danger occurs during the third stage of labor, it is necessary to watch the patient very closely. Ergot is not to be given, as the sudden throwing back of the blood from the uterine circulation of the heart is too much. Neither should the placenta be delivered by Credé's method, for the same reason. Just here is the use of amyl nitrate on a handkerchief of immense benefit in equalizing the circulation. I would not hesitate to perform venesection in embarrassed circulation. Again the use of oxygen inhalations has been a great help in relieving the dyspnoea. The drugs are those used in the period of gestation.

After delivery rest must be one of the means of the patient gaining her health.

All should be excluded from the room except those necessary to attend to the patient. I certainly think it best to remove the child to another room, and do not put the child to breast until twelve hours or so have elapsed. The diet should be stimulating and nutritious without placing much work on the digestive tract.

I have these patients douched with normal saline solution twice a day, oftener in some cases, if indicated. Usually the patient can rest better with the head elevated, which I have done until such time as she can rest easily in the recumbent position.



WHY PRIMARY PERINEORRHAPHY IS OFTEN A FAILURE.*

BY SIDNEY F. WILCOX, M. D.

We have all heard of the old doctor who has had such a wonderful obstetrical experience including many hundreds of cases, and who has never had one where the perineum was lacerated. Of course it would not do to tell this wonderful man that he does not recognize a lacerated perineum when he sees it, or to intimate that he has been so unpardonably careless as to make no examination of a case after labor.

Fortunately the modern doctor cannot often be accused of such incompetence or carelessness. He has been more carefully taught, and as a rule he recognizes the lesion and takes measures for its repair. I doubt if any up-to-date physician questions for a moment the propriety of primary perineorrhaphy in all cases where it is practicable, and almost every man will see to it that the lacerated perineum is sewed up at once. The advisability of aseptic or antiseptic treatment is taken for granted, so that we have two essentials for success in primary perineorrhaphy already admitted as being proper, and usually carried out. When one looks at a recently lacerated perineum, he sees a wound varying from a mere notch to a deep cleft, which may go down to or even quite through the sphincter ani, and the usual method of repair is to apply the raw surfaces one against the other, and to hold them in position with *external* sutures. When these are first placed in position the perineum appears to be perfectly restored, and remains so, apparently, so long as the sutures retain their original grasp on the tissues, and if the sutures are deeply placed in a rupture which is a clean split backwards, a very good result may be obtained. But there are many cases which do not constitute a clean split backwards or outward, and in which, although the newly placed sutures seem to hold, later on there is a stretching of the tissues, and the result will be a thin perineal body which gapes easily, and which afford very little support. In such cases the laceration is only slightly apparent, externally;

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it is mostly inside of the vulva, and may extend up to the su'ci on either one or both sides, or it may be that, instead of running antero-posteriorly in its direction, it runs crosswise, so that, as Dr. Emmet has graphically described it, it is like the flap of a boy's trousers, which he has neglected to button up and consequently it hangs down. In other words, a cross-tear has taken place inside of the vagina, so that the external parts are torn loose from the pelvic fascia, and simply sag down, the sagging increasing as time goes on. As this sort of tear occurs mostly inside the vagina, and only shows slightly externally, if one is not careful, only the slight external tear is repaired, while the internal and more serious wound is left ununited. The indications are simple. First, inspect all cases after labor carefully, both externally and internally, and note the extent and direction of the injury; then put the sutures in accordance with the direction of the wound, so that an approximation of the flaps brings them into their original positions and hold them there; and, last, and one of the most important points of all—use a large, full-curved needle, so that the sutures catch the pelvic fascia and hold up the parts which otherwise would prolapse and stretch later on.



LACHESIS IN NYMPHOMANIA.

BY CHAS. B. GILBERT, M. D.

Mrs. B., widow, forty-eight years old, tall, thin, dark-red hair, nervous, affectionate, met a man ten years her junior, with black hair and eyes, who made no advances to her whatever, but she says that he threw his battery upon her and set her to tingling as if waves of electricity entered the vulva, which she held tightly, that being the only way by which she could get relief; at night she talked with the man clairvoyantly, denouncing him and hearing his voice in reply; one night when she had "fought him to the point of exhaustion," she exclaimed, "I give up, beaten," upon which she heard him laugh. She came to get me to help her "break the spell" that she was under; she looked distressed and said that she had lost flesh under the strain which had lasted for some days and nights—mostly at night, when not occupied; says she is affectionate, but not passionate, a mistake, evidently; her husbands have never aroused her passion to its capability; two years of continence following a sudden cessation of menses, together with the black eyes, was too much for her. If only people of like complexions would stop marrying there would be a great improvement in the race and less business in the divorce courts. This patient prayed God to deliver her; she is very religious.

What shall be given such a patient to cast out her devil? Let us look in the "Guiding Symptoms," under *lilium tig.*: "Sexual excitement; has to keep very busy to repress sexual desire; voluptuous itching in vagina." In Allen's Encyclopedia we find: "The sexual desire, dormant hitherto, was so aroused that 'I am afraid of myself, I seem possessed of a demon'; . . . an apprehension of moral obliquity weighed heavily upon her because of this sexual excitement, although she knew that it was the effect of the drug."

The above symptoms would seem to cover the case well, but the mental state accompanying the sexual excitement of *lilium* is that of marked depression, while the patient's mental state was that of exaltation—clairaudient; besides she was not impelled to undue activity, but was better when occupied and

worse especially after sleeping, and, later, even when sitting down in the evening to read; she did not feel that she herself was responsible, but that this designing man who was constantly throwing his electricity upon her was the guilty party; she was inclined to constipation, while *lilium* has diarrhea; so that it seems as though *lilium*, with its violent nymphomania, is not the remedy: let us consult *lachesis*, also in the "Guiding Symptoms." "Thinks she is somebody else and in the hands of a stronger power; as if charmed and as if she could not break the spell; voluptuous, irritated state; fights it. Sexual desire excited to the highest pitch; luxurious convulsive thrills run all through her. Tickling and jerking extending from thighs to the genital organs. Sudden cessation of menstruation three years ago, after sudden mental emotion." (The patient broke down nursing her husband and had to take to her bed a short time before he died; no menses after that.)

Four doses of *lachesis* 200 were given, one a day, which gave her control of herself at once, but brought on *bachache* as if she would menstruate, and *leucorrhœa*, which she checked with one of those damnable combination tablets, introduced into homeopathic practice by mongrel homeopathic physicians and later by homeopathic pharmacists in a form to still farther debase the practice; and yet this woman, the widow of a homeopathic physician, came to me because she was told that I was "a homeopath of the homeopaths!" I told her to let the *leucorrhœa* alone, as it would be her salvation, and menstruation would help her still more.

Suppose that this woman had not been relieved, what then? See Talcott's "Mental Diseases," p. 101. "The patient comes to believe that he has committed a great crime for which he must suffer death; that he is possessed of the devil, or that he is the victim of a persistent and cruel persecution by electricity or magnetism, or that he has committed the unpardonable sin and is forever damned." While the patient was talking in her rapid, excitable way, her expression and the substance of her speech opened my mental vision to see the door of a lunatic asylum, but under *lachesis* the patient threw off all her troubles, lost her anxious expression, and took on flesh rapidly.

THE NEW CHILD.*

BY B. R. JOHNSTON, M. D.

That the new child is a possibility is due to the presence in our midst of the new mother. Of the many varied and interesting types of the new woman, none is of greater importance to the physician. Having thrown off the shackles of tradition, she finds herself lacking the knowledge to solve the many problems which arise in her new situation. She has risen above the superstitions of the "Old Mammy," and bitter experience has taught her that the officious neighbor is even blinder than herself. So she comes to the physician with her doubts and misgivings, with her craving for knowledge, not alone of the petty physical needs of her child, but of those greater questions which arise with a fuller realization of what an awful responsibility it is to be the author of a human life. If now her physician be also the new doctor, he will have anticipated her questionings and prepared himself for the office of counselor. There is hardly a limit to her range of inquiry. She finds that it will not suffice to concern herself with her child's present and future welfare alone, but that prenatal forces also must be rightly directed and controlled. Even in her girlhood she says to herself, "I am to be a mother; what can I do to contribute my personal share toward the uplifting of the race?" So she seeks advice in regard to exercise, food, and dress. She proceeds to train herself in right living. She develops herself to the highest in physique and character that she may bring into the world one better than herself.

When the time comes for choosing a lifelong companion for herself, she at the same time selects a father for her child. She scrutinizes closely the mental, moral, and physical attributes of the man who is to supply the male factor in the sum of hereditary influences under which her child begins existence.

It has been observed by educators among the poor whites of the South that, while in their native ignorance, girls were willing to accept the proffer of the first man who came along,

* Read before State Homeopathic Society at Waterloo, Ia., May 21, 1902.

after leaving school they would demand of their suitors a degree of education corresponding to their own.

With the new mother the demand is for a higher moral standard in the man she marries. While naturally moral herself, woman in the past has been woefully ignorant of the effects of immorality in her mate, both upon herself and her offspring. The new mother, with a better knowledge of the effects of disease and of the moral stain from associations where disease is made possible, insists upon a cleaner fountain head for the life she would have flow clear as crystal. She looks abroad and observes the almost marvelous results obtained in animal and plant life as the result of careful selection and demands that these same principles be applied to safeguard this highest of animals, most beautiful of flowers.

During the term of pregnancy we find her studying foods in their relation to the nourishment of the one she bears. She does not neglect exercise on account of personal appearance, and she adapts her costume to her condition. She avoids alike the ugly and grewsome, surrounds herself with beautiful objects, cultivates noble thoughts.

Thus may she calmly await the birth of her babe, confident that it will begin life with a good endowment.

The arrival of her child brings a host of new problems. She rebels against the multitudinous garments of her own childhood and designs a costume at once warm, soft, and light, free from constricting bands, with ample room for free movement of hands and feet. The bath means more to her than the routine application of water. She has learned from the Greek of old what an important part it can be made to play in the physical development of the race. The nourishment she herself supplies, as far as she is able, and when alien food becomes necessary, the physician is called upon again to rescue her from the maze of food-stuffs concocted by the commercial spirit of the age and to lead her back once more to nature for her baby's nourishment.

Our new mother is not afraid of the night air, so she arranges a sheltered nook in a corner of the porch where the child may sleep by day or by night with no walls to shut out the oxygen.

The earlier years pass peacefully in the home in close com-

union of mother and child, without excitement, without effort to quicken the mental faculties or excite self-consciousness by public display. Nay, even the intense mother love must be held in check, lest the free exhibition of her passion toward her child lead to the awakening of instincts before their time.

That maternal feelings be not excited in the girl baby, she is provided with animal pets in place of dolls. Since the mother would have her boy neither soldier nor sailor, the home is free from illustrations of glorious victories on land or sea. Nor does she place a gun in his hands and expect him to develop a love for birds and animals.

As the child grows older and the need of companionship arises, the new mother seeks out others of like bent to form a congenial bond for child study. Each in turn receives all the children at her home for an afternoon, where the child learns the foundation of social ethics, the limitations of personal freedom in the freedom of others.

The kindergarten is practically of her own creation and is welcomed by the new mother as giving the child a wider scope under trained supervision. The public school, however, does not meet with her entire approval.

"Why," she asks, "is the training so one-sided; why so much mental, so little physical culture; why cannot that part, which is so imperfectly and inadequately performed by the private gymnasiums in our large cities and wholly neglected in the smaller ones, be borne upon the broad shoulders of the whole community and made an integral part of our school system? Why stuff the mind with facts and theories and leave the hand and eye untrained? Why so many overtrained brains; so many overstrained eyes, yet the boy cannot drive a nail nor the girl sew on a button."

Now adolescence approaches, that period of fear and anxiety to the mother of the dear old school. How she longed to give the word of warning, but modesty restrained her. So she put it off from year to year till delay was no longer possible; then, calling her boy aside, with much hesitation she approached the forbidden topic, only to receive the reply, "Why, mamma, I learned all about those things long ago." She was years too late. The new mother knows the penalty of intrusting the child's education in these matters to the outside world, so she draws upon the animal and plant kingdom for illustration and early initiates her child into the mysteries of life, at the same time instilling into his very being the necessity of guarding to the uttermost the reproductive function, so that in the fullness of time, when the cycle is completed and a new generation appears, he too may joyfully exclaim, "Unto us a child is born, unto us a son is given, and his name shall be called Wonderful."

WHY, WHEN, AND HOW TO CURETTE.*

BY CLAUDIUS B. KINYON, M. D.

To some this may seem like too trite a subject, but curettage is really a difficult operation to perform.

By this I mean it is difficult to perform it as it should be. If not properly done, it is not effectual, or it may be even dangerous. Many a woman's life has been sacrificed by reckless or ignorant methods of using the curette. Many more have been permanently injured by such use. Still many more have not been benefited in the least by the operation. These results have led many physicians to condemn the use of the curette altogether. Many others use it so seldom that they never become adepts in its use. With these facts in mind I wish to give a few ideas about why, when, and how to curette. The reasons for using the curette are that by its use the products of disease, the products of conception, or any foreign substance within the uterus can better be removed by its use than by any other method. As a rule, Nature cannot do the work successfully, unaided. In fact, Nature is, sooner or later, completely overpowered, or so seriously handicapped that the woman becomes a chronic invalid. This being true, it is certainly desirable to adopt some method of treatment that will prevent such untimely results. The proper use of the curette will do this. We have thus briefly stated why we advocate the use of the curette.

When to use the curette is often a very difficult matter to decide. However, by bearing in mind a few anatomical and physiological facts, we can generally tell when its use is indicated. The latticework arrangement of the muscular walls of the uterus has an important bearing upon the blood supply of the organ. The peritoneal covering of the uterus and the mucous membrane lining the uterus, together with the lymphatic supply, are very important factors in the spread of infection. As a matter of fact the whole inside of the uterus is but a huge lymph gland, with numerous ducts and glands deeply penetrating the uterine walls. Indeed, many of these

* Read before American Institute, June 18, 1902, at Cleveland, O.

ducts pass through the walls and connect with the parametric and pelvic lymphatic glands. We are now prepared to state in a few words how we can tell when to operate. First, let us tell when not to operate. Whenever there is pus in the uterine wall, or around the uterus, or in the adnexa or pelvis, we should not operate, unless we are fully prepared and expect to open the abdomen at once and remove this pus. This is a rule with almost no exception. For, even though we do not reach or disturb this pus with the curette, we are almost certain to loosen adhesions and thereby rekindle the inflammation. Then, again, we should not curette when the infection, specific or puerperal, has extended well into the uterine wall and already entered the lymphatic circulation. The curette should never be used in phlebitis of the pelvic vessels or general sepsis. I wish, at this point, to emphasize the necessity of accurate diagnosis as to the exact location of the poison, for not all cases of infection following abortion, miscarriage, or labor, call for the use of the curette. We must first ascertain whether the poison is confined to the uterus and properly walled off from the rest of the system. If it is not properly walled off, the lymphatics and pelvic blood-vessels are probably already involved. The use of the curette in these cases simply hastens the death of the patient.

Now a few words as to when we should operate. Ever bear in mind the fact that Nature always tries to prevent, as best she may, the entrance of poisons into the system, and also bear in mind the further fact that when these poisons have entered the system Nature tries to combat or overcome their evil effects. In the former effort Nature forms a barrier between the area poisoned and the rest of the system. It is the duty of the physician to appreciate this fact and remove the offending substance before it has time to overcome or break through these barriers. If he does this, there will be no general infection. Unfortunately, many cases are not seen in time for this. Then, again, many physicians put off all efforts at removal until too late. In other words, operation is, in their hands, a *dernier ressort*. Under such circumstances the operation is often followed by serious results and the operation is held responsible. In short, the time to operate is as soon as infection is located,

and it is the bounden duty of the physician to locate this poison at the earliest moment.

In deciding how to curette we must take into account the actual conditions demanding such an operation. The most important fact to be ever kept in mind in every case where the curette is to be used is this. The cervix must be thoroughly dilated, and it must be kept dilated until the endometrium has entirely re-formed and is in a healthy condition. Failure in this particular causes severe pain and more or less of the *débris* is retained, thereby poisoning the system or causing the disease to return. In simple, non-infectious endometritis, a thorough removal of all the diseased endometrium is sufficient, if followed by a thorough application of what I call iodine compound. The formula is as follows: Glycerine, 70 per cent; iodine, 25 per cent; carbolic acid (strong), 5 per cent. If there is much subinvolution, follow this treatment by gauze packing. In the infectious endometritis more vigorous curettage is demanded. All of the diseased endometrium and glands must be removed, followed by the application of 95 per cent. carbolic acid, after the *débris* has been washed out with a 2 per cent. solution of creolin. Of course the application of the full-strength carbolic acid must be done with extreme caution, but very thoroughly done. This is as important as the curettage. In every case after this application of carbolic acid, the cavity is to be packed with a 5 per cent. iodoform gauze wet in glycerin. This packing seldom causes pain, if the os is properly dilated. If it does cause pain, it can be removed. A certain amount of pain is beneficial, as it shows that the uterine walls are contracting and these contractions tend to expel the poison by causing its outward flow through the os. You all know that the natural tendency of the circulation of the lymphatic system is toward the diaphragm, and if we can assist nature in expelling the poison by causing the current to flow out through the vagina we are certainly benefiting our patient. In cases of retained products of conception at any stage of pregnancy, or lying-in period, due care must be used not to penetrate the uterine walls. This is especially an important point to keep in mind in cases of puerperal septicæmia, as the walls in these cases are very soft.

Having decided to use the curette, be as deliberate and painstaking as for any other capital operation. It is very easy to do too much or too little with the curette, and serious results follow such sort of work. It is also easy to curette too much in some parts and not enough in other parts and thereby injuring the walls, leaving a raw surface, or an open mouth, so to speak, to absorb a portion of the diseased tissue which is not removed. It is best for each operator to adopt and accustom himself to a systematic plan of procedure, as this will insure more careful work. The following is a good plan, not the only one, by any means. Place the patient across the bed or close to the end of the table, in the lithotomy position. See that the patient's limbs are held in a comfortable position. Robb's leg-holder, or some such pattern, is good. See that the lower bowel is thoroughly emptied. Be very thorough with all aseptic and antiseptic details. Any good antiseptic will fill the bill. Green soap and hot water are essential. Clip, but do not shave the external genitals. Always give an anæsthetic. Use the duck-bill speculum, steadying the cervix with a volsella. Ascertain the direction and depth of the canal. In cases of ante flexion seize the anterior lip of the cervix, and in retroflexion seize the posterior lip. This gives a better chance to use the curette thoroughly above the point of flexion, and this is usually the place where most of the diseased tissue is deposited. Use what is called the rapid method of dilatation, but do not use too much force in dilating. Take time to be thorough, but do not destroy the integrity of the cervical tissues. Use as large a curette as will readily enter the cavity. Small sizes penetrate the walls more easily. Do not use the sharp curette, as a rule. When it is necessary to remove a good deal of the glandular tissue the sharp curette is essential. But be very cautious or you will penetrate the uterine wall. Use the downward motion of the curette for the cervix and the lateral walls of the uterus. Transverse motion of the curette for the fundus. Be sure that each cornu is thoroughly cleaned out, and continue use of curette until the walls are smooth. Use the double current intra-uterine douche. Swab with gauze and apply proper antiseptics with extreme care and thoroughness. Do not leave an excess of the strong solution in the cavity. If you pack the

cavity remove it within twenty-four hours, or sooner, if it causes pain. Be governed by the necessity of the case as to how frequently you clean out the cavity. Some cases will need no treatment whatever. Others may need the treatment twice a week for a month or two. As a rule, one curettage is sufficient. Let me repeat, keep the os well open and keep the cavity clean. Apply the perineal pad and retain it by a T-bandage until the endometrium is healed.

In cases of abortion or normal labor it takes six weeks for the site of placental attachment to heal.

A case illustrating important points in the technique of curettage will be of interest:

A woman, forty-six years of age, with the following history. Eight years ago she gave birth to a full-term fetus, which had been dead several weeks. The fetus was badly decomposed and her system thoroughly saturated with poisons. The expulsion of the fetus was left to nature, which process, owing to the fibroid condition of the uterus, was long and tedious; the placenta not being expelled for nearly three weeks after expulsion of the fetus. As would naturally be expected, the patient was confined to her bed with puerperal septicæmia for six or eight months. The first four weeks of this period she was desperately ill. About eighteen months after this illness she began flowing excessively at each period. This condition continued for three or four years, at which time the attending physician discovered a polypus in the cervix. This being removed, the hemorrhage ceased for several months. About two years ago she again began excessive flowing, which process continued to increase until I saw her a few weeks ago. At this time she was very pale from loss of blood, having a marked cachexia. The blood-count showed an enormous increase of leucocytes and the corresponding diminution of the red cells. A careful analysis showed the kidneys in a fairly good condition. Under an anæsthetic the following conditions were found to be present—by the way, never give an anæsthetic until you test for urea. The pelvis was completely filled with a large, hard immovable mass; the os dilated to nearly two inches. Presenting at the os was a hard nodular mass. The finger could be easily swept around the entire circumference of

this mass. A very fetid discharge, dark and stringy in character, exuded from the uterus. This odor was simply overpowering. Abdominal palpation showed that the mass extended above the umbilicus, filling the entire lower part of the abdomen. With two fingers in the rectum, by exercising considerable force, the mass was found to be movable. Passing the sound caused profuse hemorrhage. The uneven surface of the abdominal portion of the tumor led us to the conclusion that we had several interstitial fibroids to deal with. Of course, it was very clear that there was a large fibroid in the uterine cavity. This tumor had already undergone degeneration to a considerable extent. We decided at once to thoroughly dilate the cervix and remove this degenerated fibroid through the vagina. This required several minutes, and we also found it necessary to cut this tumor into several pieces. During this process the hemorrhage was very serious, but as soon as the entire tumor was removed the hemorrhage was easily controlled. We now reached a critical point in the treatment of this case. The patient was too weak for us to consider for a moment the advisability of opening the abdomen to remove the growth. On the other hand, it would never do to return this patient to bed with this diseased tissue remaining in the uterine cavity, for we had already produced a large raw surface in the uterine cavity with the instruments, in addition to what had been produced by the irritation of the tumor. So it was decided to hurriedly and vigorously curette the uterine cavity. And now comes the interesting feature of the case. This intra-uterine fibroid originally started in the left wall of the uterus. The action of the uterine muscles and the lessened resistance naturally tended to force the tumor into the uterine cavity. When this tumor was removed we found the left wall of the uterus very thin. In fact, very little of the muscular wall remained. The least force with the curette would have penetrated this wall. All other portions of the uterine wall were very thick and nodular. Above these nodular masses, or fibroids, were found large masses of diseased endometrium. These must also be removed, but we found it an exceedingly difficult matter to do this without rupturing the thin portion of the uterine wall. After this was accom-

plished strong carbolic acid was applied, the uterus packed with gauze, and the patient put to bed. She rallied nicely from the operation. This packing was removed, the cavity cleaned, and the packing placed each day for ten days. During this time the patient so far recovered her strength that an operation for the radical removal was deemed advisable. The abdomen was opened from the pubes to the umbilicus, as a large umbilical hernia was present. This was dissected out, the uterus and the mass of fibroids removed, and the patient made a satisfactory recovery. I have cited this case to show how cautious must be the use of the curette in one part of this uterus and how vigorous must be its use in another. And only those who are adepts in the use of the curette can treat such cases successfully.



THE RELATION OF SURGERY TO GYNECOLOGY.

BY O. S. RUNNELS, A. M., M. D.

Knowledge is gained by observation of facts. Worthy conclusions are formulated only after ample consideration of all the testimony obtainable in a given case. The analytical mind and the utmost that can be known concerning any problem are complementary, and both are necessary to scientific attainment. Any discussion of morbid conditions, therefore, that does not embrace ætiology, is superficial and inadequate; any employment of remedy that does not regard causative factor first, and *materia medica* second, must be rated as haphazard and aimless; inasmuch as there can be no acquisition of learning without investigation and no therapeutic advancement without intelligent application of remedy.

The inexorable demand for the study of cause as well as effect has led to specialism in medicine and particularly to the development of gynecology. It was this that created another department of the Healing Art within a single generation. Symptomatology without ætiology, therefore, now passes at a discount; hence the critical examination before the application of the proper remedy, not always a drug.

Before the advent of physical examination and through all the antecedent ages of woman's history, gynecology was in a state of non-development; there was no adequate light upon the subject, and progress was dependent wholly upon accident. The invention of Sims' speculum marked the beginning of gynecological science, for not until that time was the requisite knowledge accessible for logical treatment. Anterior to that surgical intervention, as a recognized and imperative agency in the cure of many of the ailments of woman, had no place. Beyond the employment of supports of various kinds for uterine displacements, little was done in a surgical way to restore the invalid woman to her normal physical status.

In this I do not forget the wonderful achievements of McDowell and others in abdominal surgery, then in its infancy; nor the tentative efforts, here and there made, to strengthen the torn perineum. I claim simply that gynecology as a science

did not have growth until Sims answered the demand for physical examination; that the technique of gynecology dates from that time and that surgery, as an obvious necessity in gynecological therapeutics, was then recognized and established.

Gynecology without surgery would almost resemble literature without an alphabet—it would certainly be a creation without its essential part. For surgery is an indispensable factor in the female equation, inasmuch as many of the physical problems of woman cannot be solved without it.

Gynecological surgery has come to stay. It is here by right of evolution. It is the culmination of developmental process and cannot be hindered or set back by the timid or the stupid. The rapid multiplication of surgeons in recent times has been, it is true, a source of great mental disturbance to many so-called conservative people, but in spite of their fears and their aspersions about surgeons with base mercenary motives and with unworthy desire "to cut, regardless," the demand for surgeons has not been equaled by the supply. The actual need of surgical help has never been met and cannot be met, on the large scale in the very nature of things, for a long time to come; and I measure well my words. Grant the errors of omission and commission—the mistakes and the faulty technique—of the tyro surgeon, and you have but admitted the costs of tuition—the necessary experiences of all culture. You have in no wise disproved the necessity for good surgery in multi-millions of cases.

The phenomenal development of surgery in our time is not a human fiction, but the answer to an imperative call; it is the response of the enlightened to the necessitous demands of human need. And it is a matter of education. Both the operator and the operated are learning. While surgeons require the utmost qualification for their great service,—and I point with satisfaction to the large number of our profession who have already mastered the knowledge,—both of head and hand, necessary to successful surgery, the people everywhere—I mean the patients, their guardians and their physicians—all of them, require education quite as much in their way to be made intelligent concerning the early necessity of surgical procedure.

The greatest lesson in the life-school to-day is to know when the inevitable surgical operation will be the most opportune; is to be able to detect the surgical malady in its very earliest history and to have education enough to decide upon radical treatment at a date sufficiently near the beginning to insure complete restoration to health. The standing blotch upon the enlightenment of to-day is the lethargy that holds the candidate for surgery back until his opportunity has gone by forever; until surgery can no longer be efficient to save.

Let us look for a moment at the so-called "conservative" people; those who have viewed with alarm, for instance, what they call an invasion of the sacred privacy of the female sexual domain and have strenuously opposed not only all physical examination, but, also, all suggestion of surgical remedy. Laymen have objected and have said times without number, "Before I submit, I will die first," and have then proceeded to die; and uneducated and unprincipled doctors everywhere have catered to such destitution of knowledge by advertising in their several ways their ability "to cure without the knife." To dispel such crass ignorance and to lay bare such professional incompetency, if I am justified in using a term so far below the requirement, has been and is an herculean task. But the work has progressed and the task is being accomplished. More and more, as experience lengthens, are the people of the world learning the lesson of their greatest good; more and more as they are confronted by the awful catastrophes, the deaths, due solely to delay, are they coming to realize the inestimable value of saved opportunity. Such unfortunates have learned too late that their true professional adviser was not he who weakly or wickedly counseled the do-nothing or "no-knife" policy till the day of salvation was passed; but the one who told them the unvarnished truth about their condition, however unpalatable that proved to be, and who courageously proposed to aid them to the extent of his ability in the removal of the causation of the difficulty. It is becoming known, thank God! that conservatism is the thing that conserves, and is not the ignorant and vicious shilly-shally that allows a patient to drift beyond the breakers into unknown depths where calamity is unavoidable.

The Creator said at the beginning, "Let there be light"; and light from that day to this has continued to penetrate. Happy incident is it for the afflicted woman if light shall dawn upon her problem at the opportune time; if the brave and true suggestion can reach her before it is everlastingly too late and while yet her difficulty is at the minimum! And this, too, extends to the race. All life is but an education; it is but the dispersion of ignorance.

It is not a double decade since surgeons were called to operate upon enormously large abdominal tumors only; where it was a question often whether the tumor should be removed from the woman or the woman from the tumor. Such women had been bed-ridden for protracted periods, all expectant treatment had long since ceased, and the surgical operation was the last resort, inasmuch as it "was death anyway." Is it any surprise that the percentage of loss was sixty and that surgery was regarded as an extra-hazardous procedure?

To-day such belated individuals are hard to find. It is very rare that one comes straggling in. Only once in a great while is a surgeon now called upon to remove a mammoth tumor. Why? Because everybody has learned better. When surgeons make records of cures of from 98 to 99½ per cent. by operating upon small tumors, the laity realizes that early operations are the safer and act accordingly.

This is typical and illustrative of my point. Truth has general applicability. A half decade ago we were contending against expectant treatment of appendicitis. Men were still advocating cathartics and oil treatment and general expectancy, both in early and late appendicitis; and some were called butchers and charged with being crazed by their inordinate desire to make an early "cut." To-day we camp on different ground. The expectationists, the most of them, have had an accession of information in five years, and now know that they cannot be absolutely sure of their diagnosis in what has come to be known as the storm-center of the abdomen; that several other morbid processes obtain in that region that are so closely allied in their symptoms to appendicitis as to deceive the very elect; that differentiation in many cases cannot be made without an exploratory operation, and that expectant treatment under

such circumstances may be homicidal. More than that, without an exploratory, they cannot know, in the appendix case proper, the exact status of the morbidity; or whether perforation has already occurred, or gangrene is established and progressive, or general suppurative peritonitis is being engendered. The intelligent adviser to-day does not wait long for things to evolve in a supposed case of appendicitis, particularly when progress by the hour does not appear to be in the right direction.

The wide-awake doctor, in supposed appendicitis, no longer does much waiting for things to turn up, or in some haphazard way to evolve for the good, when ignorance of the true condition is the most prominent factor in the doctor's equation, and certainty as to the situation is out of the question. Experience has proved that opportune surgery will clear up a diagnosis and save the appendix case, or its analogue; and that opportunity means the appendix before perforation or gangrene. It means appendectomy in the early hours of the difficulty.

The rattlesnake always warns his victim; Mont Pelee boiled his bituminous caldron and vomited death long enough before May 8 to enable everyone to reach safety; and every appendix case or its double has a history of warning sufficiently ample to enable every victim to utilize his opportunity. It was too late at St. Pierre when they commenced to run!

The history of surgical progress teaches that advancement is made by the anticipation of events; that the percentages of cures are enhanced by early intervention; and that the trend of all surgical experience dictates that the best time to avert catastrophe is before the dread event is actually upon you.

As a consequence, desperate surgery is to-day less and less required; and minor surgery is more and more in evidence. Anticipating the later necessity, under perhaps then forbidding circumstances, it is a matter of election in every wisely conducted case—I mean it is a matter of choice—both as to the time and the place of the operation and as to the good operator. Thus it is, through wise anticipation, that minor or easy surgery is becoming in our time the major part of the practice; and that the terrors of the “knife” are being removed from

the surgeon and relegated to the doctor or patient who has been responsible for the fatal procrastination.

The evolution of surgery is toward prophylaxis; from the desperate to the less desperate; from the dangerous to the entirely safe; from the corrective to the preventive.

The relation of surgery to gynecology is twofold; it is, first, to effect the removal of the gross obstacles that impede the woman's health; and, second, it is to anticipate all embarrassments of functional activity that surely will end in degenerations and neoplasms with which the surgeon later will have to deal inevitably.

Beginning with the girl not later than puberty, surgery will see to it that menstrual embarrassments shall have abatement through removal of every physical irritant, either clitoral or rectal, as well as every mechanical interference; so that hygiene and medicinal remedy, if called for, shall have unimpeded action. It is the province of surgery to see to it that every marriageable, or to be married, girl is physically capable of motherhood; that she is not the victim of an infantile uterus or other functional impediment—and that she is in prime condition to do woman's work in the world without catastrophe. Surgery will closely follow the parturient act with the repair of all lacerations and the removal of all rectal and vesical morbidity engendered by the pelvic plethora of gestation—for rectum and bladder are also under the care of the gynecologist. It will discountenance long-continued tampon or pessary treatment for uterine retro-displacements and prolapses when ventro-suspension is the only logical procedure. It will do conservative patchwork upon ovaries and tubes and save them from major degenerations that will surely demand their extirpation. It will look intently at every corrosive ulceration of os or cervix uteri; regard with alarm every hemorrhagic uterine discharge at or after the menopause; and refuse to make long question concerning the true nature of "lumps" in the breast. The uterine cervix with cancer just started demands immediate extirpation of the whole organ with its adnexa. The "change-of-life" hemorrhage signifies either intra-uterine vegetations, fibroid tumor, or corporeal cancer, and should have the sharp curette immediately and—this failing—removal of fibroid, or

pan-hysterectomy without delay. Every nodule in *mammæ* is under indictment; it is either malignant or benign—presumably malignant. Surgery will give her the benefit of the doubt, but will not wait long. If there is no doubt of cancer on the morning of the discovery, the only safety requires extirpation of the entire breast before noon, or dispatch similar thereto, together with all the axillary glands of that side. Do not dally with cancer, if you would be spared wide-spread proliferation of cancer cells; if you would operate while you still have a boundary; if you would get there in time to save.

The relation of surgery to gynecology is in the first place that of the conservative; it is the horseman down the valley shouting, "the dam is breaking, get out of the way"; it is the prevention of all that is implied by the words desperate surgery! In the second place, the relation is that of the radical; the catastrophe has been permitted; the wreck has occurred in part or in whole; and surgery is called in to verify the hopelessness of the situation or to clear away the *débris* and to make possible the prolongation of a badly crippled existence.

Surgery is not only supplemental, but complementary, to gynecology. In many cases in fact it covers the entire field and serves the whole purpose. It is never inimical to the indicated medicinal remedy, but, on the contrary, saves that valiant arm of our service in untold instances from failure and ignominious defeat. What can be less lustrous than a prescription that has no relevancy whatever to the case in hand; than the exhibition of a remedy that is and must be powerless to effect any change in the physical condition of the patient?

Every competent workman has tools for specific purposes, and makes exhibition of his masterful workmanship by putting those tools to their intended uses. He may get through a pinch by the use of substitutes, but would never choose to do so willingly. The same is true of the physician's armamentarium. The most acceptable and generally satisfactory service is rendered by the employment of that instrument, or remedy, best suited to the accomplishment of the end sought. It does not matter whether that end can be attained in some other way—by internal remedy alone, if you please, rather than by the surgical remedy, single or combined; the desideratum is to

secure the result most advantageously and for the most lasting good of the patient.

The practice of medicine—and that includes the possible use of everything that can under any circumstances be curative of disease or physical embarrassment—requires the widest exercise possible of what is known as common sense. This will demand the employment of the surgical remedy very often where the Fathers, in similar cases, made use of the internal remedy only.



ECTOPIC PREGNANCY, AND OTHER SUBJECTS.*

BY WM. CASH REED, M. D.

SYLLABUS.

(1) Salpingitis of puberty; differential diagnosis; pathology; "abdominal crises" (the four or five diseases in which this occurs); prognosis; treatment; conclusions.

(2) The sign manual of ectopic pregnancy; sketch of subject; hydrostatics of condition.

(3) Case in which there was entire absence of intra-pelvic sexual apparatus; illustration; drawing; diagram (not published).

Before commencing my paper it is but fair to state that some portion of the first section appeared in substance in the *Homeopathic Review* of November, 1900.

Further experience of these cases seemed to warrant a somewhat copious reference to this paper, as forming a workable basis for the present sketch.

CATARRHAL SALPINGITIS OF PUBERTY.

Symptoms and Signs.—Case I.—A young lady of 13½ years, a rather tall blonde, was taken suddenly ill with symptoms somewhat perplexing. Her previous health had been good, and she inherited a rheumatic, but not a tubercular tendency. A ride on her bicycle was followed by unusual lassitude, and in the course of a few hours she began to vomit and

* Presented to the Liverpool branch, Brit. Hom. Med. Soc.

to complain of pain located in the right groin. The knees were drawn up, the abdomen moderately tympanitic, and the tongue had a white coat. Temperature 102° , pulse rapid and full and sometimes dicrotic.

I should observe that the catamenia had not yet appeared. Such was the picture one evening, and the same with slight modification met the eye on the following morning, though the vomiting was absent now, and it did not recur throughout the illness.

For nearly three weeks the symptoms above narrated continued, with but slight and fitful variation. Generally, a little improvement in the morning, but a return to the *status quo* at night. At the end of this period, while lying in a sunny window wrapped in blankets, a gentle perspiration occurred, and the patient began slowly, but definitely and progressively, to convalesce.

During the twenty months which have elapsed since recovery from this illness, the patient has had two similar attacks, one lasting about two days, the second about a fortnight. The first occurred after a bicycle ride, the second a week after a ride on horseback. During previous rides she had been conscious of pain, hence there would appear to be a distinct relation between cause and effect.

At the present time she is in her usual health, which is fair but not robust. It should be noted that in these attacks the pain is always referred to a point immediately above and in the center of Poupart's ligament. This part is very tender on even light pressure, and long after the other symptoms have passed away it remains the site of a certain conscious tenderness.

Diagnosis.—The diagnosis resolves itself into a consideration of the following:—(1) Simple pelvic cellulitis; (2) simple pelvic peritonitis or a combination of these two; (3) appendicitis; (4) tubercular peritonitis; (5) hematoma of broad ligament; (6) catarrhal salpingitis; (7) rheumatism; (8) injury to psoas muscle.

Pathology.—Under this head it will, I think, be best to discuss briefly the diseases indicated by above headings. The last two may, I think, be cashiered, as being too nebulous to admit of practical consideration. They may, of course, have played

some part, but at the best it must be an insignificant part, in the rôle of symptoms.

As regards No. 1: This was undoubtedly present, as will be apparent later on.

As regards No. 2: From the character of the pain and its sudden onset, and especially in view of the vomiting, I have no doubt this was present in definite degree. But peritonitis is a secondary disease, and it is conservative in character—two characteristics which will be emphasized later on in the right place.

With regard to No. 3: Appendicitis could hardly occur with its phenomena in the locality indicated unless some pre-existing disease of the part concerned had altered its position in the abdominal cavity, and of this there was an entire absence of evidence. Pain manufactured at McBurney's point could hardly give tenderness in the groin and none at its site. It is true, however, that the sympathetic nervous system is sometimes found to be, as it were, singularly obtuse in its interpretation of pain, or poorly discriminating would perhaps be a more legitimate term to use. Markedly is this the case in ovarian and renal diseases.

For the lesion to be, as indicated by No. 4, essentially tubercular, it would be necessary to establish at least a phthisical history, and this is entirely absent in the case under review. Moreover, one would look for evidence of tubercular mischief elsewhere, and there is none.

Thus, Nos. 5 and 6, by a process of exclusion, remain to be faced. I have for years been much impressed, on a careful scrutiny of abdominal sections occurring in the practice of others, both at home and abroad, as well as of such as have fallen to my own share, that the amount of disease of the adnexa is often entirely disproportionate to the degree of pain complained of, also to the degree of incapacity for an active life, and, moreover, to the apparent magnitude of the lesion. The latter is often much greater than the most careful examination conducted bimanually would lead one to suppose. That such should be the case admits of explanation in great measure, but to enter into this would carry us too far afield from the main issues of the present sketch. I mention the above merely

to indicate that the absence of phlegmon in the broad ligament, as ascertained by examination per rectum, and inability to find by the same channel evidence of tortuosity of the fallopian tube, is no evidence that either the one or the other, or even both, do not exist. Equally pertinent to the inquiry *re* hematoma are the facts just mentioned regarding tubal mischief, viz., that its variations are extraordinary, as regards pain, degree of invalidism, and extent of disease. Broadly speaking, the tangible pathology of hematoma varies within the limits of a minute hemorrhage and an enormous hematocele.

As regards No. 6.—I detailed just now a group of symptoms (fever, pain, vomiting, and collapse) which occurred in one case. These symptoms, taken together, constitute what is known as an abdominal crisis, and this is, I think, the crux of the whole situation, and, taken in conjunction with the rest of the history, is, I believe, pathognomonic of the disease under review.

May I call to your notice four types of disease, very diverse in character, in which I have seen instances, sometimes recurrent, of an "abdominal crisis"? And before referring to them let me just again recall the essential criteria of this condition. They are sudden, violent, localized pain in the abdomen, accompanied by vomiting, fever, a rapid pulse, sometimes syncope, and always more or less collapse.

The types of disease in which this is observed are: (1) Twisted ovarian cystoma; (2) early ectopic gestation; (3) gonorrheal parametritis; (4) purulent salpingitis; and perhaps one should include perforating gastric ulcer.

The diagnosis of each of these there is no time to go into. The last (No. 4) is the only one which shall detain us. When the fimbriated extremity of a fallopian tube, distended with pus, sheds what has been aptly termed a "tear" of pus into the peritoneal cavity, the conditions favorable to the formation of an abscess are set up, peritoneal inflammation being, of course, the initial one. Thus the symptoms just narrated occur. Such, then, is an "abdominal crisis."

So much, then, for just a sketch of the pathology, which has

been incorporated with a consideration of the differential diagnosis.

Ætiology.—Before coming to prognosis, a reference to the ætiology should find a place at this point. As to the predisposing causes, they appear to be intimately associated with changes incident to the inception of puberty, and thus the disease appears at that period of life indicative of early adolescence. A frequent and perhaps invariable accompaniment is leucorrhœa, and this is, as some think, the essential factor of the disease. Personally I am not, so far, convinced that this is the case. As to exciting causes, they point to traumatism, induced by such causes as bicycle and perhaps horseback riding. This may appear rather too wholesale a condemnation of such healthy exercises for the young female adolescent; I can only say again that, in one of the four cases which have formed the basis of my remarks, the symptoms have appeared on two or three occasions after bicycle riding, and on the third occasion there is strong presumptive evidence that it arose in consequence of a ride on horseback, while in another case altogether it indisputably did so.

Prognosis.—Is favorable as a rule. The conditions which would make it otherwise are, I presume, a tubercular tendency, or the necessity from force of circumstances to continue what would tend to perpetuate traumatism, as the occupations of some of the erroneously called "lower classes."

Treatment.—Is not surgical. The remedies naturally fall to such as have an elective affinity for the structures involved, and depend largely upon the degree of precision in diagnosis which is attainable. They are essentially acon., bell., and, facile princeps, arsen., nux vom., merc. cor., arsen. iod., conspicuously, and cod liver oil. If the condition failed to resolve under treatment, and a more or less chronic pelvic suppuration was engendered, I should use such remedies as the silicates of lime, soda, or potash, or possibly the silicate of calcium, and the fluo-silicate of potassium.

Conclusions.—To sum up the foregoing, I would venture to suggest that in some at least of these cases we have a traumatic hematoma of broad ligament, either alone or coupled (which is perhaps more likely) with a salpingitis, sometimes

catarrhal, sometimes purulent, and that, alone or in conjunction, they set up the symptoms known as a "peritoneal crisis."

Such, then, are the conclusions which I submit as justifiable in consideration of the four cases to which I have referred, though giving details only of one, the most typical. The conclusions are incomplete, perhaps because various hiatuses exist which at present one cannot bridge over. If one could, there would be less room for assumption and more for assertion. To be dogmatic, however, in matters medical, is neither wise nor prudent.

THE SIGN-MANUAL OF ECTOPIC PREGNANCY.

I do not propose to enter at all fully into the general signs of this condition, my object being to dwell only upon one, perhaps the most important of them. In order to do this, however, it will be necessary just to glance at some of the other accompaniments of this unfortunate accident.

As I happen to have seen a fairly large number of cases of extra-uterine pregnancy, it has naturally followed that the signs and symptoms have come to arrange themselves in some sort of order, as regards priority of importance, in one's mind.

Perhaps the first point which strikes one when listening, in the case of a multipara, to the more recent menstrual history, is that, in spite of its vagaries, there is at least the suggestion of pregnancy. The stopping of a "period" by a week or two is suggestive. The subsequent hemorrhage is significant. The grouping of signs is unusual, and several may be absent. I hope I shall not be accused of levity in saying that it has sometimes reminded me of Grossmith's setting of "Three Blind Mice" according to Mozart, Beethoven, Händel, Mendelssohn, etc. Though infinitely varied as to its musical setting, the air is still "Three Blind Mice," and runs through the whole, but in this case unmistakably.

Having then pregnancy in view, inquiry is made as to any prepregnant pelvic condition which may throw light upon the present state of things, and especially as to any history of tubal lesion. If such exist, we have presumptive evidence that it may be of such a nature as to have interfered with the normal descent of the ovum from the Graafian follicle along the tube

to the uterine cavity; in short, we seek for some evidence of mechanical obstruction of the tube, be it within or without. Leaving out of consideration the subjective symptoms which are common more or less to all cases of pregnancy, we look for additional objective signs, especially for the presence of a tumor felt in one or other fornix. Such a tumor is exceedingly significant; it is distinct from the uterus, and may be extremely hard, or soft and sensitive, to the touch. There is also a most characteristic sign to which reference has already been made in another connection, viz., the history of one or more "abdominal crises."

The pain of this is agonizing, and generally occurs after exertion. Before coming, however, to the "sign-manual," as I have ventured to call it, I should like to give some better idea of a typical case than the foregoing disjointed statements taken from various cases I have seen probably convey, and one which I came across the other day in the *Medical Review of Reviews*, November, 1901, strikes me as particularly apt and instructive. It runs as follows:

A fine, healthy-looking woman, aged twenty, married only a few months, was suddenly seized with rather sharp pains in the abdomen, similar to those of intestinal colic. She vomited her dinner, which she had taken an hour or two before. She had menstruated twelve days before, quite naturally as far as she knew. Her medical attendant gave her a hypodermic injection of morphia, and advised her to remain in bed until his return a little later. Not long afterwards he was visited by the husband, who announced that his wife was better and that there was no necessity for his return. Early in the evening she complained of feeling rather weak and faint, and he was again sent for, and becoming anxious the writer saw her in consultation. She was faint and collapsed, and the pulse was small and weak and thready, the temperature subnormal, the extremities were cold, and a cold gray appearance had spread over the face. Careful inquiry elicited that the pain had become localized in the left iliac region. Vaginal examination revealed nothing. Laparotomy was performed. The abdomen was full of blood. There was a rent in the left tube, from which the blood was flowing. The ovum, about the size of a bean, was found on the anterior surface of the broad ligament, between that structure and the bladder. After removal of the tube the abdomen was filled with salt solution and closed.

Intravenous saline solutions were freely used, but she was too exsanguine to react, and died some four or five hours later. Thus in very early rupture the only symptoms are often sudden abdominal pain, confined for the most part to one or other iliac region, symptoms of shock, and hemorrhage.

I have only incidentally referred to the general signs and symptoms of ectopic pregnancy, partly because there was no time to do more, but chiefly because I wish to concentrate our view upon one point, the keystone of the situation. Therefore I will ask you to imagine the object of examination for the moment to be the os uteri, exposed to view with a Sims speculum.

Blood is seen issuing from it, of a certain color and consistency, and possessing certain other characteristics. An artist has indicated these in the painting before us, and, I think you will agree with me, with success. Leaving the characteristics of the discharge for a moment, however, I would remark that it has seemed to me that the uterine hemorrhage incident to ectopic pregnancy is more of the nature of a uterine leak, with occasional gushes of bright red blood, than menstruation. All of us who have done much in the way of emptying a uterus after an abortion will have been struck with the fact that there is a certain odor which is characteristic of the condition present, and one which is found in its full intensity in labor at full term. In ectopic pregnancy this odor is, I believe, absent.

I have stated that the uterine discharge is a leak, and now remark that it is dark in color, that it is thickish, and that it has a mucous tenacity. To be more exact in point of color, the blood should be described as brown or brownish-red. It has aptly been compared to what is known to cabinet-makers as "dragon's blood," being that kind of coloring material for cheap furniture, more or less like mahogany—chiefly less—and hailing mainly, I believe, from the metropolis. In consistency the blood is of a mucous tenacity, as stated, or varnish-like. The grouping of these characteristics of the blood discharge in ectopic pregnancy I have ventured to call the sign-manual of that condition.

In conclusion, a reference to the hydro-dynamics of the hemorrhage ought to be made and one other point considered,

- viz., whether any other condition than that under consideration yields a sanguinary discharge similar or identical to that described. In regard to the hydro-dynamics: when a hematoma of the fallopian tube or other structure of the broad ligament exists, the blood is squeezed by the distended sac along the tube, and escapes at the uterine extremity of the latter. It sometimes happens that hemorrhage from the uterus having been present, ceases more or less abruptly, but this must not deceive one, for it may be due to one of three causes, viz., (a) the sealing up of the uterine end of tube by an organized blood clot; (b) to cicatricial tissue there; (c) to mechanical torsion of the tube itself, resulting in obliteration of its lumen. When the hematoma is opened, and the contents (blood-clots, ovum and decidua) find exit, the bleeding from the uterus of course ceases for obvious reasons.

Since writing the above, it has occurred to me that an exception as to the characteristic hemorrhage described above should perhaps be made in favor of one type of case which comes before us, viz., in chronic pelvic abscess. I have noticed that the type of menstruation which occurs in this condition bears some sort of a resemblance to that which obtains in ectopic pregnancy. In the former, however, the attendant signs and symptoms are different, and the ætiology is of course entirely dissimilar.

CASE IN WHICH THERE WAS AN ENTIRE ABSENCE OF INTRA-PELVIC SEXUAL APPARATUS.

In fine, I wish to bring before your notice a very remarkable case in which there is an entire absence of the internal generative organs. The patient, a single woman of about twenty-five, came to the out-patient department of this hospital, complaining of dysuria. A cursory examination revealed a urethritis, associated with a condition of parts which at the time was noted as extraordinary, and full investigation determined upon at a future period. Subsequently an acute abscess of Bartolini's gland supervened, which in the intervals of attendance gave so much distress that the patient had to seek outside help. Ultimately she was referred by the doctor to one of the hospi-

tals—I forget which—for treatment for “hemorrhoids and fissure of the anus.” That neither of these, however, existed will be apparent in the sequel.

Preferring, however, to come to us for a recurrence of treatment, she again presented herself. A leucorrhœa being extremely copious and irritating, the patient was placed under an anæsthetic for local treatment. This consisted in thoroughly scrubbing the vagina, or rather the short cul de sac to be referred to immediately, with 1-2000 perchloride solution, the scrubbing being carried out with a toothbrush—a very efficient method of dealing with such cases, especially in view of the way in which the rugæ of the vagina harbor the morbid secretion.

The following notes were taken on this occasion :

There is an almost entire absence of pubic hair, the external appearance of pudendum being therefore infantile, except that at the lower commissure of the vulval cleft there are brown concentric furrows. These surround the fourchette, and indicate, according to some authorities, that the morphology of the parts, though nulliparous, is not virginal.

On separating the labia majora a normal clitoris and meatus urinarius are exposed, and below the latter, in place of a normal vagina, is a cul de sac about two inches in depth, lined throughout with a perfectly smooth mucous membrane. I submit that this may represent the persistent uro-genital canal, deepened by attempts at coitus. Below, occupying the raphé of perineum, is a reddish or reddish-blue projecting body, shaped like a roof ridge, and extending backwards so as to overlap the anus, and on lifting up the tent-like free end a cavity is disclosed. The lower wall of this is torn, and whether when complete it formed the entrance to a separate canal, or was only a diverticulum of the rectum, is not clear. The finger can be passed along this cloaca, which is lined by lumpy, mucous-membrane-like carunculæ myrtiformes, to the lower wall of the vaginal cul de sac, and though not entering the latter is only separated from it by mucous membrane. The direction of this cloaca is at right angles to the vaginal cul de sac, and terminates at a point about an inch within the latter.

A thorough examination per rectum, bimanually, reveals no

vestige whatever of uterus or adnexa, the only structure to be felt being something of a band-like character, which probably represents morphologically the broad ligament. This examination with negative result was made the more complete by placing a sound in the bladder, while the fingers explored the rectum, all that intervened between the one and the other being the wall of the bladder.

The Clinical Research reported no gonococci in the specimen of urethral secretion sent after the swabbing referred to had been carried out. Anal condylomata were subsequently removed by the cautery, and the patient discharged with remedies directed to the syphilitic contagion.



THE AMERICAN INSTITUTE.

T. Griswold Comstock, M. D.: The old statistics of the forceps, such as were taught in Churchill's "Midwifery," are to-day valueless. Whenever any delay occurs in a labor, and the delivery may be terminated by *the use of forceps*, they are indicated and should be at once applied. This is a rule that I have adopted and taught for the past twenty years. Regarding the application of forceps when the head is at the superior strait—the "high operation"—this is an operation which should be made only after careful consideration. In such a position of the head, I always place the woman in the Walcher posture, with the legs pendent, and, even then, I have resorted to the forceps very seldom, preferring version as being safer. I have occasionally adopted it in consultations where the attending practitioner has insisted upon it, and I have known injurious consequences in the hands of others. Personally, I have never had any mortality from the use of forceps when rightly applied. They are safe for both mother and child, and in many instances where I have used them successfully, in subsequent labors, lying-in patients have begged me to hasten the delivery by resorting to them again. Dr. Southwick and other high authorities have mentioned the rectification of the position by the aid of forceps, and in occipito-posterior positions to introduce them reversed.

I have tried this plan without success, and am now opposed to it. Even such high authority as the late Professor Scanzoni advised it, and with his most wonderful skill and experience it may have been practical. In cases of occipito-posterior positions when the head is well down and the occiput lies fixed in the cavity of the sacrum, with the pains still active, we are advised to wait patiently, and not at once to use the forceps; because in many such instances nature will rectify the position and bring the occiput under the pubic arch, so that the head may be delivered normally. From reliable statistics we learn that in posterior positions of the occiput, nature will rectify the position in ninety-seven per cent. of the cases; but the other three per cent. of the cases must be delivered by bringing the occiput over a greatly distended perineum. However, remarkable as it may seem, I have seen rectification of the position effected by the efforts of nature alone.

The question now comes, how shall we manage the delivery of the child in cases about three per cent., where we cannot turn the occiput forward? In the progress of the labor the head has come down in a down-grade course, the forehead is under the arch of the pubes, and the occiput lies fixed posteriorly. Such cases are among the worst and most serious that the accoucheur ever has to deal with in midwifery practice. The woman has become exhausted, the pains have ceased, she cannot deliver herself, the "*Vis a tergo*" is gone and nature must be assisted by "*Vis a fronte*," and this must be effected by a resort to the forceps. To get the occiput out of its position in the cavity of the sacrum, an up-grade course must be adopted. The perineum is already greatly stretched, and in this position, when the occiput is forced over it, you will have in nineteen cases out of twenty a ruptured perineum,—and as the late and venerated Dr. Ludlam used to say: "*Ruptured from Dan to Beersheba.*" The forceps must be applied, but before introducing them, in order to prevent an antero-posterior laceration, we must resort to the little operation of episiotomy—making lateral cuts in the posterior quadrant of the vulvo-vaginal outlet. Then we may apply the forceps, making at first direct traction so as to, if possible, bring down the sinciput so as to bring in sight the glabella, and then rais-

ing the handles of the forceps towards the abdomen, bring the occiput over the perineum, when a complete delivery of the head may be effected. Immediately after the birth of the child and delivery of the placenta, I suture the lateral cuts, and I have always seen them heal by first intention.

The consequences of these lateral cuts are by no means so serious as the spontaneous traumatic tear of the perineum, which as a rule is antero-posterior. I may here take occasion to remark about the operation of episiotomy that it was known and practiced by Wielding Ould in London as early as 1749, was also recommended by Michaelis of Hamburg, in 1810, by Von Ritgen, Credé and others in Germany. In the Vienna Obstetrical Clinic, where I first learned it from my old friend and teacher, Professor Gustav Braun, it has been practiced for more than half a century; but, strange to say, until within the last fifteen years it has been little noticed by either American, French, or British authorities. Dr. Lusk mentions it in his midwifery and dismisses it in the following words: "It is essentially the operation of young practitioners, the occasion for its employment diminishing in frequency with increasing experience." Neither Cazeaux, Ramsbotham, nor Playfair mentions it by name; Parvin, Dorland, Grandin, and Leavitt all extol it.

Fothergill of Edinburgh, in his recent work upon midwifery, recommends it. In that classical work upon midwifery by Winckel of Munich, translated by Dr. Clifton Edgar, I quote the following:

"The threatened destruction of the perineum is the only indication for episiotomy; this is due to the extreme narrowness of the external genitals, or to rigidity of the soft parts, or to a faulty presentation of the child. It is done to prevent extensive solution of continuity, especially central rupture."

In the "American Text-Book of Obstetrics" we find the following:

"No method yields better results for the ultimate integrity of the perineum than episiotomy, rightly timed and properly executed. The ultimate condition of the pelvic floor after episiotomy correctly performed is even better than after many natural deliveries in which the parts escape rupture." Pro-

fessor Mulheron of Detroit, in speaking of the operation, says: "The woman should always be delivered with her perineum under close observation of the accoucheur, and when it is apparent that the parts are about to give way, the incision should be made." Furthermore, Dr. Mulheron adds: "Episiotomy is unquestionably one of the most important of obstetrical procedures, and its technique should be mastered by everyone who assumes to deliver a woman. So firmly am I convinced of its practicability that I believe spontaneous rupture of the perineum is absolutely inexcusable." This is a comment upon that conservative author, the late Professor Lusk, and for his slur on episiotomy, calling it, "The young practitioner's operation"; but this was written ten years ago, and during the period of a single decade experience has taught us many advances and changes in both the science and art of obstetrics.

I am very glad that Professor Kenyon has mentioned the use of strychnia in labor where the pains are weak, insufficient, and exhausting the woman's strength, ending in a complete inertia. In an ordinary labor, where the pains are weak and insufficient, I give nitrate of strychnia in doses of 1-60 to 1-30 of a grain, and repeat the dose every two hours until I have administered some three or four doses. Time and again by its use I have seen labor pains come on and the delivery completed without the use of forceps. I have never seen the least harm from this practice, and I assure you that it is far more effectual and safer than either quinine or ergot.

G. Forrest Martin, M. D.: I want to sound a note of warning about *rubber gloves*. Some have expressed a sense of security which they claim the rubber gloves give to the obstetrician. I am positive that they often give a false sense of security, and rubber gloves will not take the place of eternal vigilance in obstetrical work. I have repeatedly seen men come into an operating room, wash their hands and arms with soap and water; take one half-cleaned hand and work on a rubber glove, contaminating that glove; and then take that contaminated glove and work the other glove on with it. Now, someone has tritely remarked that "soap and water answer the demands of society, but not of surgical practice"; and a cleansing of the

hands before inserting them into rubber gloves, with simply soap and water, will not add anything to the security from the use of the gloves. A man who is going to wear rubber gloves in his obstetrical practice should, before putting them on, carefully wash, and sterilize his hands, or else take some other precaution before putting them on. If in a hurry, have boiled with the gloves a towel or cloth which can then be used in rubbing the first glove onto the hand.

And after the gloves are on, I want to sound another note of warning. We will suppose that the operator has made himself absolutely sterile. He has, to start with, made the patient sterile so far as can be. He cannot make the contents of the rectum sterile, and it is almost impossible to go through a case of labor without some contamination from the anus occurring, and you should wash your hands, or wash the gloves rather, just as often, and as faithfully, as you would wash your hands.

John Prentice Rand, M. D.: There is one suggestion that I will make in regard to *keeping the contents of an instrument case sterile*; and that is, after it is sterilized, put in a candle of formaldehyde and carry it as a part of your case.

J. Maxwell Christine, M. D.: I find in my obstetrical practice that fully ninety per cent. of cases of infection arise from a lack of *asepsis previous to conception*. A year ago in the hospital with which I am connected there was a woman confined by a man strongly insistent on asepsis. Every precaution had been taken; she had been in the hospital for at least ten days or two weeks previous to the confinement, but about three days following accouchement she was taken with a chill and there was a very high degree of inflammation in the pelvis; her life was jeopardized. The attending physician was very much worried and annoyed, and censured himself for perhaps having some imperfect link in his aseptic chain, and he called me in consultation.

I advised having the husband in consultation, and after questioning him very closely we found that about three months previous to the conception the husband had been infected with gonorrhea, and the patient's condition was no doubt the result

of gonorrheal infection. A practitioner would have been inclined to censure himself and the laity would have censured him had the case occurred in a private home in which the proper precautions had been observed.

Florence N. Ward, M. D.: The technique of *obstetric practice* should be elastic enough to cover all classes of cases. For instance, those cases to which physicians go, in the poorest walks of life, in the tenement districts, where conditions are far from cleanly.

It is impossible to change the conditions of bed clothing, mattresses and surroundings, but one can cleanse the *immediate* field of operation; that is, the external genitals. In those patients who live in crowded districts it is impossible to cleanse with a surface cleansing of bichloride, and for that reason I advise the use of the scrubbing brush; but I lay special stress upon its gentle use, so as not to produce trauma. Use the brush lightly, but get up a good soap lather all over the external genitals. If proper precautions are exercised about this cleansing, the patient can be kept aseptic. Another point: about clipping the hair. Patients are usually very much adverse to shaving of the parts, so that, if the hair is abundant, we simply clip freely. In the primipara there is always the liability of lacerations, so we clip the hair on the lower part of the vulva, thereby having a free field for the sewing up of the laceration. Sew up immediately every laceration, so as to leave no point for entrance for pathogenic bacteria. Under these conditions there are no raw surfaces left. If there are abrasions on the vulva or around the vestibule, they take but a few moments to repair, and the great advantage is that there are no raw surfaces left, either in the vagina or perineum.

Then, under these conditions, I must raise my voice again against douches. In the first place, why should we give douches? The vagina is, under normal conditions, a clean canal; then why trust, in the hands of ignorant women, the application of douches to this sterile canal? Many of these patients have to depend upon a neighbor for help. The neighbor does not know how to prepare the douche bag, how to prepare the water, nor how to render the surroundings

aseptic. She puts her fingers into the water to test it, the tube dangles against the wall, or comes in contact with any other foreign substance, so that by the time the water is introduced into the vagina it is pretty certainly contaminated. Nature preserves a clean canal under normal conditions, and if there is a normal vagina, nature drains it and the case pursues a normal course.

B. H. Ogden, M. D.: The use of the *forceps in this high position, i. e.*, before the head engages, is a very dangerous procedure, and I wish to emphasize the necessity of great care in their application, and to advise that in place of the forceps, when the expulsive pains do not make the head engage at the superior strait, the substitution of version is a very favorable and not difficult operation to perform. This, of course, needs to be done under the proviso that there is not much contraction. We must not have the conjugate diameter contracted below 3 3-4 inches if we wish to perform version; but if the obstruction is slight, the contraction not below 3 3-4 inches, and the head does not engage, it seems to me version is preferable to the application of the forceps at the superior strait. The greatest danger of such application has been, in my experience, to the child, resulting sometimes from the cord falling down between the blade of the forceps and the head. I have endeavored to avoid this difficulty by placing the mother in a modified Trendelenberg position when applying the forceps.

Andrew B. Spinney, M. D.: Regarding the condition in *obstetrical cases* where the pains did not come—and that is often the case, by the way—during the first few hours, before the head engages, the pains may be hard and easily borne, and yet after a while the mother gives out. There you are! The mother stops helping you; the pain ceases. What are you going to do? There is just one remedy that is worth all the rest in the *materia medica*, to give in these cases, and that is strychnia. It will begin to work immediately. It is one of the greatest tonics we have. I have seen patients in labor a week probably, completely exhausted; had not the pains for

several hours, and the midwife would be in a sad predicament, not knowing what to do. Speaking as little English as I can German, she would express herself like this, when I enter the room: "The baby no come; she has no pain; that way so long." You give 1-60 grain strychnia, four doses, maybe two or three hours apart, but after that let it alone; and I say to them, keep perfectly quiet. There is no immediate need of application of forceps until the strychnia begins to work, and it will work. I have never seen a case where it did not.

Current Comment.

J. Lindsay, M. D.:

There have happened, twice previously, in my long experience, cases of *indentation of frontal bone in difficult labor*, and both from using the long forceps for difficulty at the brim. In all the cases the impression of the forceps has been on the opposite side. These cases were not corrected, and the children did not suffer in any way, but I did not like to see them. This time the head caught at the brim, and I had to use the long forceps through the dilated os. The help required was not great, and I was astonished to see the indentation on one frontal bone, and as before the distinct impression of the forceps on the other side. Before I separated the child I pressed firmly inwards on the edges of the bone, and was greatly pleased to feel the bone take its natural shape with a kind of crunch, something like a bone going into its socket. I believe that a good deal more force than I applied in this case might be used with all safety, and most, if not all, these cases be corrected at the moment.



M. Savage, M. D.:

About a year ago I was called to attend a case of *dystocia due to ascites in the fetus*, the midwife in attendance having sent for me. The patient was an Italian woman, aged thirty-two years, medium size, III-para, and had no complications in her previous labors. The head was expelled two hours before my visit, but there had been no further progress. The mid-

wife said that she had almost pulled the head off, but it would not "budge." The position was L. O. A., and the child was dead. No maternal abnormality could be detected by palpating the abdomen. The pains were feeble. I hooked my right index finger into the left armpit of the fetus, and used traction, pressing with my left hand upon the breech through the fundus. The traction was continued until the arm of the fetus was almost severed, but there was no advancement. Dr. B. was called in, and after repeated attempts he likewise failed to dislodge the trunk. Suspecting dropsy of the fetus, he punctured the abdomen about the diaphragm, when a brownish liquid escaped, the abdomen collapsed, and the trunk was immediately expelled. There was no external abnormalities about the fetus, which was of medium size and weighed probably about seven pounds. The head was not hydrocephalic. Unfortunately, we could not ascertain the cause of the condition, since we were not permitted to do an autopsy.

Dystocia, after expulsion of the head, should lead one to suspect dropsy of the fetus.



Robert Jones, M. D.:

No greater truism has been uttered than when Gooch stated that no medicinal agent can relieve a disordered mind except indirectly through the disorder of the body with which it is connected, and which must therefore be ascertained and discriminated.

The treatment of *puerperal insanity* must depend upon whether the period be that (1) of pregnancy, or (2) childbirth, or (3) after confinement. And first as to pregnancy: Out of 56 of my cases whose insanity occurred during pregnancy 49 were delivered in the asylum, 47 at full term. Only 1 died before confinement, and the cause of death was recorded as vomiting connected with the parturient state, although the necropsy revealed the lesions of general paralysis.

It has been recommended by some authorities that if the onset of insanity be early in pregnancy, abortion should be procured. Unless this treatment be adopted for convulsions or uncontrollable vomiting, I fear that it has but little to recom-

mend it. This form of insanity is generally a recoverable one, and the symptoms in many pass off, either towards the end of pregnancy or soon after confinement, whereas the chances are remote of operating successfully upon a patient who is not only quite incapable of assisting her own aseptic treatment, but who, on the contrary, may add further risks to it owing to her own mental condition, and these disabilities appear to me to be strong contra-indications to premature delivery. On the other hand there is an end to anxiety as to the future of the child if it survives, but this does not concern us. The great outbursts of excitement which are not infrequent symptoms of this variety, the marked fits of depression and fear culminating in suicidal attempts, require the most constant vigilance on the part of those around her, and in private practice the grave question of home or special hospital treatment becomes of paramount importance. The dislike and mistrust shown by the wife towards her husband, coupled with the general acceptance of trifling mental deviations at these times, and the feeling of repugnance against putting pregnant women away, make it difficult, it not impossible, for the husband to do so, and she is generally nursed by her friends. On the other hand, the indifference and possible danger to her children, and the heedless regard to the home ties, may make it necessary to remove her.

The impulses to suicide and homicide are not infrequently aggravated by the presence of friends, whereas the regular routine of asylum life favors regular processes of thought and reflective action which are the first indications of recovery. Asylum treatment often renders unnecessary the excessive and damaging use of narcotics, calmatives, and restraints which must be used to prevent the noise and destructiveness of patients in their own homes. Asylum treatment means decisive feeding, and it rids the patient for a time of the female relations, who almost invariably have a prejudicial effect upon her. This question most often resolves itself into one of means, and I would hesitate to send the well-to-do pregnant woman from home when she can obtain all the advantages of asylum care, which is impossible for the poor. The general treatment is that of the parturient female—a light dietary,

gentle exercise, bright surroundings, attention to the bowels by saline aperients, and sleep by mild hypnotics. Complications which may arise, such as eclampsia, must be dealt with after the methods and upon the principles of obstetric practice.

Insanity occurring after the puerperium needs more special treatment, both general and local. This is the most recoverable form, and well-to-do women, if suffering from the first attack, should not be sent away from home within the first six weeks of the onset of symptoms. I would even endeavor to make this my rule in all cases of puerperal insanity. At the same time this is one of the most difficult forms to deal with, owing to the emotional disturbance and the tendency to infanticide and suicide. It will be an intense relief to the family to avoid the stigma of an asylum when this is possible, and the gratitude of patients upon recovery from this form of insanity for everything that has been done for them—and they require vigorous treatment—is in marked contrast to the recovery from any other form. Moreover, to the mother herself it will be an intense relief, as Savage states, to think she has only been suffering from “fever” and not brain disease, and it will help her to go through subsequent attacks if she can be treated at home and not in an asylum. For the mania of this disease the “wet pack” has been used successfully, and is recommended, but I have had no experience of its use.

I have used continuous immersion with water at 100°, but had to give it up owing to the struggling. I have had satisfactory experience of the electric bath treatment when cases have appeared to become chronic and stuporose, or indifferent to their surroundings. Although the insanity of childbirth is impulsive, wild, violent, and noisy, it is a busy delirium not of a sthenic character, and treatment of too antiphlogistic a kind is undesirable. I know of no form of insanity which so well repays generous treatment, and the free administration of liquid, easily assimilable nourishment is a necessity. Indeed, the essence of general treatment may be summed up in “compulsory super-alimentation.” Dr. Savage agrees that the great danger in these cases is starvation, and that the crux of treatment is decisive feeding. Refusal of food is the most serious symptom in all cases of puerperal insanity, and must

be combated with at all cost, as when bodily improvement occurs in puerperal insanity it is not infrequently the forerunner of mental recovery. Food should be given during every quiet interval, and at each opportunity, as the exhaustion from this form of acute delirious mania is intense. It is for these cases that alcoholic stimulants appear to be absolutely necessary. Cases are reported in which within a week or so of admission into the asylum, puerperal women have developed gangrene of the extremities necessitating amputation; and, although it is open to critical suggestion that this is a proof of septic or bacterial origin I have not met with such in any of the 259 cases under my care, although I have met with cases in which, when pneumonia has occurred the hepatized lung has failed to undergo resolution, and gangrene or phthisis has resulted. I often (probably in more than twenty-five per cent.) use the nasal feeding tube for puerperal and lactation cases—eggs, beef-tea, milk, and malt liquor, maltine, and cod-liver oil are pressed upon the patient, who, during puerperal mania, can bear free doses of podophyllin, not only once but frequently repeated. Sleep must be obtained, and for this opium and morphine are both unsuitable; the former is contra-indicated owing to its effect upon the secretions, and also owing to its stimulating effect on the nervous and circulatory organs. It is important to relieve headaches, which often accompany sleeplessness. A return of the menses may be looked upon as the forerunner of permanent mental improvement, and means to encourage this should not be omitted.

Before recovery is complete I have frequently noticed relapses and a return of mental confusion after apparent convalescence. This pathological periodicity appears to be the equivalent of the physiological periodicity occurring in normal sexual and reproductive life. At times, after prolonged mania, a dull, listless condition of semi-stupor is developed which requires a special effort to overcome. I believe it is at this stage that a change from the asylum to home surroundings may prove beneficial; or, if the patient is treated at home, a change from home is attended with marked improvement. If this be neglected an incurable dementia may set in and become progressive. One cannot insist too strongly upon a return

to home life in these cases. As to local treatment, vaginal douches of boracic lotion and carbolic acid have been used in many of my cases, and the latter appears to soothe also, as some patients have asked to continue them.

In cases where an offensive discharge occurs and the temperature points to the retention of membrane or clot, it is necessary to dilate the cervix under an anæsthetic and "curette" the endometrium. In one case this was successfully done. In another, confined before admission, sudden hemorrhage occurred about the seventh week after childbirth, and which recurred twice. The vagina was packed with ice and normal saline solution injected into the rectum.

In two cases I have used the antistreptococcus serum, but beyond the slight reaction evidenced by elevation of temperature, which may possibly have been due to the fear on her part that some harm was being done to her, no good resulted. Thyroid extract has been tried in several cases. Marked physical reaction resulted but no mental benefit accrued, and the cases have become chronic.

The breasts need special attention. Glycerine extract of belladonna has been used, as also strapping, and in some cases abscesses formed which had to be dealt with.

With regard to stimulants, I have seen cases admitted during lactation as the result of its indiscriminate recommendation and administration, and it affords another instance of the abuse of a valuable and powerful therapeutic remedy.

I have already referred to the prevention of this form of insanity by discountenancing the marriage of hysterical and neurotic persons, and upon this I should like further information from the practice and experience of others.

I conclude by expressing my firm belief in the maxim that insanity is, and ever will be, the product of two factors—stress and heredity, and the greater the inherited vital resistance of the tissue the greater will be the strain required to overcome it. Our duty as professional men is to raise this resistance against the action of selective toxins by combined effort, and thus render growth more perfect, life more vigorous, and death more remote.

Henry K. Leake, M. D.:

The employment of *buried sutures* must be regarded as still a moot question, and it is doubtful if for years to come it will be authorized as the invariable custom, even in the closing of wounds judged to be ideally suitable. So much depends upon rigid asepsis, the character of wounds, the material used, the discriminating judgment and skill in the number and placing of sutures, and, what is not always taken into account by operators, the systemic condition of the patient, that results must vary, with probable preponderance on the side of failure. That the factors, any one of which may not be omitted, that combine to make of the buried sutures an ideal method of closing wounds, have been realized and practically utilized by surgeons enabled to meet all the requirements, is true, but for the average surgeon throughout the country the practice had best be avoided.

As shown by some, the through and through sutures, even in the thickest abdominal wall, retain our confidence if they are applied after the approved method that exactly will coapt the parts, leaving no dead space, nor undue constriction of the tissues. Of course, catgut, made sterile, if possible, still holds the field against all other materials employed for the purpose, but the future, doubtless, will improve upon its claims and thus establish a greater confidence in the buried suture than at present obtains. While I have endeavored to perfect myself in the use of buried sutures, I have steadily improved, also, in the selection, preparation and skillful adjustment of the through and through suture with increasing satisfaction, both as to the immediate healing of the wound and its future behavior. In 1891 I first began the use of buried sutures in the case of a badly ruptured perineum, with an ugly fistula through the remaining recto-vaginal septum. The latter was divided, and the closing of the perineal rent was done with the Tait incision coated by four or five rows of buried sutures of sterilized silk-worm gut. The small loops and knots worked out, some into the rectum through sinuses that it was curious to observe finally closed, leaving a fairly good perineum. It may be said that the tissues in close proximity to the rectum are not suitable as a fair test of the retention of the buried

suture, but Marcy and Kelly have employed freely the kangaroo tendon in this region, they assert with ideal results. For some years past I have employed catgut frequently as a buried suture in the several layers of the abdominal wall and elsewhere, but latterly, particularly in the closing of the wound after the operation for hernia, my results with buried kangaroo tendon have demonstrated the superiority of this over any other form of suture material.

It remains to be seen whether or not, as is claimed by some, the kangaroo tendon after one month will be removed by absorption, or at an indefinite future period be extruded by a suppurative process; but in a case in which it was employed similarly two years ago I have had no report of suppuration, although I recently have learned of the patient's condition being normal in every particular.

However, it is proved to my satisfaction, as well as to that of others, that fatty tissue is the least favorable to the absorption, or permanent retention, of any form of buried suture material, no matter how well this is placed. The lobular character of such tissue prevents the uniform obliteration of all dead spaces on its surface, and its vitality comparatively is low, but this latter varies with the individual; an observation that found expression in the oft-quoted phrase of an old nurse of Weir Mitchell: "Some fats are fast, some fats are fleeting, but cod-liver oil fat is soon wasted"; consequently, as naturally would be expected, the destinies of buried sutures will vary with their environments, both as to the cellular organization of these and their peculiar vital endowments. At any rate, the buried suture in fatty tissue has a very problematic future, and, therefore, if possible, should be avoided in the closing of all wounds where fat is much in evidence throughout the field of operation.



J. Cater, M. D.:

A case of *spontaneous craniotomy* was that of Mrs. A. B., aged thirty-two. She expected her first accouchement about December 24, 1901. She had never had any illness beyond slight attacks of gout. The catamenia had always been regular.

A month before the anticipated event there was hemorrhage per vaginam following a "very bad dream," the patient leaving her bed during sleep. The child was then living, and occupied the left dorso-anterior transverse position. The external os barely admitted the finger tip. The hemorrhage ceased within forty-eight hours.

On December 6 labor pains commenced at 11 A. M., and at the time of my visit were occurring every thirty minutes. The position of the child was rectified without difficulty, and a firm binder was put on the abdomen. The nurse had administered a "good dose of castor oil" that morning. At 5 P. M. I attended in answer to a summons and found that the child was born. Pains came on stronger after applying the binder, the patient being kept upon her feet. The child (a female) was lying on its back with both legs and thighs flexed, the feet resting against the mother's left buttock. The cord was almost black and without pulsation, but there was no discoloration about the body. The skin (outer) was torn off the right shoulder and arm, the front of the thorax and abdomen. The eyes and tongue were protruded; the head presenting the appearance of craniotomy forceps having been employed. The frontal bone was fractured, the fracture extending from above the left orbit to the right malar bone. The occipital was in two unequal portions. Several pieces of bone could be felt within the scalp, while the scalp itself was uninjured. The child was full term, though it weighed barely 6 1-2 pounds. There was some difficulty in removing the placenta, which was small, but very thick, and contained several fibrous nodules, two of which were the size of a small marble. The patient lost very little blood, but was considerably exhausted for the first half-hour after parturition. Her pulse was good, but the temperature was only 97°. She has since done remarkably well.

With a view to advising in the event of a subsequent pregnancy, Dr. Giles kindly saw the patient with me. The result of his examination gave pelvic measurements, from a study of which it was evident that the pelvic deformity was not responsible for the crushing of the child's head. I can only suggest that the contractions were so powerful that the

child was expelled with its head in hyperextension, the body passing into the pelvis before the head was completely clear. Even on this supposition it is difficult to account for the stripping of the skin off the child's right side. Any question of culpable violence could be entirely set aside.

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T. S. Webster, M. D.:

When an infecting organism enters a fallopian tube it usually sets up a reactionary inflammation, which tends to close the fimbriated end and thicken the tube. In some cases it invades the intra-ligamentary cellular tissue, and the peritoneum, especially that part forming the folds of the broad ligament, becomes hypertrophied. In most cases pus accumulates in the tube, and as it is distended it tends to separate the folds of the ligament, so that a considerable space is found between them, and the tube may eventually rupture into the ligament. Not infrequently *tubal pregnancy* works outward into the broad ligament, and ruptures into it. In cases where these pathological processes occur, and we are called upon to operate either before or after rupture, an *extra-peritoneal method* of dissection gives the best results. Since 1896 I have practiced the following method in such cases:

The patient is prepared for vaginal, and also for abdominal section, as in the cul-de-sac operation. The uterine artery is located, and the mucous membrane beneath it is opened with forceps and scissors, and a dissection made with the fingers through the cellular tissue toward the seat of disease. If one keeps close to the uterine artery there is little danger of puncturing the folds of the broad ligament and opening the abdominal cavity.

In this way I have exposed the under surface of pus-tubes and an ectopic gestation. A small electric light, such as is used with the male urethroscope, can be inserted, and a visual inspection made, but "finger sight" is all that is needed to recognize the under surface of the tube.

When the tube is reached, an assistant holds the tumor down by pressure from above, and the index finger is inserted so that the tip touches the tube. Along this finger as a guide a

long, sharp-pointed scissors is passed to the tube, and by gentle pressure is forced into it. When the tube is punctured, that fact is recognized by sudden diminished resistance. The scissors are opened in the tube and withdrawn, tearing the opening wide enough for drainage.

After the contents have been forced out by pressure upon the lower abdominal wall, and irrigation used if necessary, a gauze packer is introduced and an iodoform gauze drain put in. This is changed as required until the opening is closed from the tubal end. As soon as the patient has recovered from the anæsthetic she may be allowed to go about without danger.

I have relieved a tubal pregnancy by this method and sent the patient home in three days. Eight days after she walked half a mile to church; two and a half years after she gave birth to a healthy baby, having had perfect health in the interval.

This extraperitoneal operation differs from "Vaginal Section and Drainage" as practiced by Dr. H. A. Kelly and others. Their plan is to force long, sharp-pointed scissors through the vaginal mucous membrane upward in the axis of the pelvis to the focus of inflammation, or center of the tumor. In doing so, the ureter or rectum may be punctured, or the scissors may transfix the abscess cavity and pass into the abdomen. The plan I have outlined has been practiced without mishaps. In ruptured tube cases the finger does all the work after the mucous membrane of the vagina has been opened. Intraligamentary cysts and a ligature abscess after abdominal section can be relieved by this method without danger and with the same rapid convalescence.



Wm. Krusen, M. D.:

The case which I report is one of *uterine perforation* with omental injury. For the previous history of the case I am indebted to the family physician, whose name I refrain from mentioning because of the possibility of unjust or unfair criticism of one who is a careful practitioner and has had hospital training.

Previous History.—“Patient, Mrs. L., age thirty-two. Small, frail, never had robust health, extremely nervous, frequent attacks of hysteria, two children, eight and five years old. She had had constant pelvic symptoms since birth of last child, which was instrumental, and after which she gives a history of excessive hemorrhages (*post-partum*). Called about November 15, 1900; found her in a very weak, excitable condition, with a history of constant hemorrhage, varying in amount from day to day, but not ceasing for the past three or four weeks; no pelvic pains or other constitutional disturbance except such as would arise from continued loss of blood.

“There was an unsatisfactory history as to existence of pregnancy or the occurrence of abortion. Bleeding continued but to a less extent, with the patient quiet in bed. Examination showed an enlarged uterus, much like that of subinvolution,—cervix deeply lacerated, soft so that it would almost admit a finger.

“Curettement, November 20, 1900, Ether. Dilatation unnecessary, uterus soft and relaxed, considerable quantity of clots or portions of membrane, supposed to be remnants of incomplete abortion. These were removed. On account of not using the finger to explore the cavity of the uterus, the sharp curette was continued unusually long, in the effort to get the cavity clean or so that it would feel clean to the instrument. There was considerable loss of blood during the latter part of the curettement, and still a sensation as of a portion of membrane in the upper left portion of the fundus; after a brief effort this was brought to light as a portion of omentum at the external os. I was not aware of having used excessive force at any time and did not recognize the perforation until the omentum presented at the os. The omentum was replaced with great difficulty through the now contracting internal os, and a strip of gauze carried in after it into the fundus of the uterus. The patient showed a marked degree of shock. The anæsthetic was withdrawn and a surgeon called immediately.”

Cœliotomy was performed within two hours after the injury had occurred. The abdomen was opened by a median incision about two and a half inches in length. The uterus was in a normal position; an opening through the fundus large enough

to admit the index finger was present. The omentum had been pulled through this opening into the uterine cavity and the gauze packing, which had been introduced from below, protruded through the fundal aperture and had been effective in stopping the hemorrhage. About a pint of fluid blood was found in the peritoneal cavity. The omentum was withdrawn from the uterus, the injured and bruised portion of it ligated and removed; the opening in the uterus was closed by four interrupted catgut sutures and the peritoneal cavity thoroughly irrigated with normal salt solution. The abdominal incision was closed with interrupted silkworm-gut sutures. No drainage was employed. The patient made an uninterrupted recovery and has had no untoward symptoms since operation.

This case, I believe, is one of many others that show how easily accidents may occur even in the hands of careful men; and it emphasizes the necessity for care, cleanliness, and special training in intra-uterine manipulation.



E. R. Hooper, M. D.:

One pregnancy in every thousand cases is in the ectopic position.

So true is the statement that the diagnosis and fate of the *ectopic pregnancies* rests with the general practitioner that Lawson Tait, with the largest recorded experience of seventy-five cases, *post-mortem* and *ante-mortem*, never had an opportunity of making an early diagnosis. If it is incumbent upon the pathologist to find the cause for this condition, and the surgeon to treat it, the graver responsibility rests with the practitioner to guard the life of his patient by an early diagnosis.

I will present the history of a recent case.

Patient, Mrs. M., aged twenty-five, married last August; miscarried in November. On February 15, the date of the regular monthly period, the patient was seized with pain in small of back, accompanied by aching of legs and pronounced weakness and excessive flow.

These were simply exaggerated conditions of the usual monthly phenomena. The following day the patient was up for about two hours, when the aching increased suddenly to a

spasmodic pain felt in the left iliac region. A physician was summoned and attended for a week, till symptoms were relieved. On the 21st, the sixth day after the onset, the patient was up and continued to go about till March 10. Two unusual features marked the intermenstrual period: (1) Sharp and intermittent pains, sometimes diffuse, but usually localized in the left ovarian area. (2) A vaginal discharge, which varied from a mere trace to a free flow of blood. Nor were these features independent of one another, as the flow was in proportion to the pain, the pain being invariably followed by an increase in flow of blood.

March 10 and five following days there was a marked increase in pain and quantity of flow. These were more regular in character, and no doubt corresponded to a menstrual period.

On the 11th I saw the patient for the first time. There were few constitutional symptoms to excite alarm, the pulse being 72 and temperature 98.2-5. There was, however, diffuse pain over the abdomen, with special tenderness on the left side and some rigidity of recti. The face was, however, drawn, and wore an expression of anxiety. The pain subsided under treatment, but returned in three days, with no apparent cause. On vaginal examination on the 15th the os was found to be extremely sensitive. There seemed to be thickening of the tube and broad ligament, an opinion based, of course, somewhat on actual observation, but also on inference, as the pain and the rectus of the left side denied me a lax wall for free palpation. I advised the patient to go to the hospital, as she would be in a more suitable place to await results.

On the 18th of March the patient entered Grace Hospital, and as she did not improve the next two days, a consultation was decided upon. On account of the tenderness, the patient was prepared for examination under an anæsthetic. The abdomen was prepared for coeliotomy should the conditions found indicate it. Dr. Emory and Dr. Barrick, as consultants, and myself, examined bimanually, and had no difficulty in locating a tumor of the left ovarian region. The tumor was round and hard, and seemed to be about an inch and a half in diameter. A sulcus was felt between the uterus and tumor. Surgical intervention was considered advisable, and Dr. Emory decided

to operate without delay. The usual median incision in the linea alba was made. On coming to the peritoneum the yellowish and jaundiced tint presented by the serous membrane covering blood was seen. Active hemorrhage was already present, and was very profuse, covering the intestines and omentum everywhere. To arrest hemorrhage at once, the left pedicle was felt for and clamped. The tube was then brought into view, and a large opening at its extremity inclosing a tumor was revealed. The proximal part of the tube was about normal in size, but the distal portion, including the isthmus, the ampulla and the fimbria, were greatly thickened. Salpingo-oöphorectomy was performed, the tube being removed beyond the healthy appearing portion. The blood was removed as far as possible, and the abdomen closed without drainage. The peritoneum, fascia and skin were closed separately by continuous catgut sutures. As there had been considerable loss of blood, and the pulse had lost its tone, I ordered a hypodermic of strychnia, 1-20 grain, and a quart of normal saline, which were given before the patient left the operating room.

The subsequent condition caused no anxiety, the recovery being uneventful. The patient sat up on the tenth day, and went home on the thirteenth day after operation.

On a more careful examination of tube it was found to be slightly increased in diameter and thickness in its proximal uterine portion. Towards the area spoken of as the isthmus it began rapidly to enlarge and thicken, becoming cone-shaped in appearance. The inflammatory action here was most pronounced, the wall being fully a quarter of an inch thick. The tentacle-like appearance of the fimbriated extremity was wanting; no trace of the fimbriæ could be found. The margin of the opening at the extremity was thick and rounded like the rim of an egg-cup. Inclosed in this cup-like enlargement was what at first was considered to be the fetus. On examination it was found to be an organized blood-clot. This blocked the lumen of the tube, but increased in size with the deposit on its surface of the blood from each fresh hemorrhage. The clot was prevented from escaping or being forced into the abdominal cavity by adherent bands of fibrin. The sac appeared to rest between the ovary and the extremity of the tube, supported

by the tubo-ovarian ligament and the broad ligament. Traces of the villi of the chorion were found on the tube, ovary, and ligaments.

The broken amniotic membrane was found attached here and there, and its inner smooth surface was easily recognized. No trace of the fetus was found. It was thought that the sac was present in the large tumor, afterwards found to be a clot. Not till the abdomen had been closed was it discovered that the fetus had not been removed with the tube. The action of the clamp when placed on the pedicle may have separated the attachments. Under favorable circumstances the fetus may escape detection, and Howard Kelly has pointed out that it may be lost sight of altogether, and at other times be found only after the most thorough search. It is then recognized by the presence of a dark spot representing the pigment in retina of eye.



J. G. Henry, M. D.:

I remember that while in college our teacher of obstetrics, the late Dr. Dunster, in speaking of the rarity of *placenta praevia*, said to the class: "The majority of you will never see a case," and yet, in an obstetric experience of something over fourteen hundred cases, I find that I have notes of seven. In my list there have been no maternal and but three fetal deaths, all of which were in premature labors.

A lady consulted me about the middle of her fourth pregnancy on account of hemorrhage. She had had two or three attacks in a few weeks, quite severe. She was advised of the probable cause and that it would most likely be necessary to bring on premature labor. After one or two more hemorrhages this was done by myself and an assistant. As she objected decidedly to taking ether, we dilated the uterus without an anæsthetic. Found the placenta exactly over the os, went through it, turned and extracted the fetus without much difficulty, although the dilatation required more time than if an anæsthetic had been used. There was severe hemorrhage during the operation, but not as much as we had expected to encounter.

Another case was seven months advanced in her second pregnancy when I was called in haste on account of a severe hemorrhage. She was having slight pains, the os about one-third dilated and soft, and the placenta presenting. Called another physician, who gave the ether and I easily dilated the uterus. Found a shoulder presentation, turned and delivered a dead baby. Convalescence was uneventful.

To a primipara, eight months pregnant, I was hurriedly summoned on account of a most alarming hemorrhage. There were no pains, and the bleeding had nearly stopped before I arrived. The os was soft and the placenta could be felt presenting.

I advised the husband of the condition and urged immediate delivery as the only safe course. Arranged to operate the next day, as they wished to call their former family physician, who lived in an adjoining town. Met him by appointment the next afternoon, and although he agreed with me as to the diagnosis, much to my surprise he advised against interference, unless there should be further hemorrhage.

I explained my opinion to him and to the family, and refused to assume any responsibility in the case if left to itself. Was called a few days later and found the patient with a foul vaginal discharge and a thoroughly developed septic fever; temperature 103.5° . I again urged the necessity for immediate delivery, and this time gained the consent of the husband and patient. Under ether I dilated the uterus without difficulty, went through a rotten placenta, found a shoulder presentation, turned and extracted the fetus and cleared out the uterus as thoroughly as I could and washed it out with hydrogen peroxide. She ran quite a temperature for two weeks, but finally recovered.

A former patient came from another town to be under my care during her confinement. She was about eight months advanced in her fourth pregnancy, and had had two recent attacks of flowing. I explained to her the probable cause of the hemorrhage, and that it would be safer to bring on labor at once, but it was finally decided to wait unless she had further trouble. Was called a few days later and found her flowing profusely. The hemorrhage commenced while she was on

her feet, and, as she expressed it, the blood simply poured away from her.

The os was about one-third dilated, there were slight pains, and the hemorrhage was still alarming. After packing the vagina I called another physician, and under ether dilatation was completed, and we turned and delivered a living baby. There was quite a post-partum hemorrhage, which we controlled by hot-water irrigation and compression of the uterus. About one-half of the placenta seemed to have separated before labor. Except that the mother was very anæmic for some months, both did well.

The hemorrhage was very severe in this case, and I blamed myself for not interrupting the pregnancy before the last attack.

In the other three cases in my list only an edge of the placenta presented. Two of them had copious hemorrhage in the early stage of labor, which ceased as soon as dilatation was well under way. The first of these, a primipara, had such profuse flowing that the blood soaked through the mattress and formed quite a puddle on the floor. The bleeding had nearly stopped when I arrived. The second had a similar attack at the onset of labor. At the end of the first stage there was almost complete inertia, and I was obliged to finish the delivery with forceps. The last case, a primipara, had a hemorrhage a few nights before labor, commencing while she was asleep. The labor was normal. In each of these three cases the edge of the placenta could be felt through the os.

In regard to the best treatment, it seems to me advisable to do abdominal section, only when version or delivery by the vaginal canal cannot be readily done. In country practice, at least, we do not always have a surgeon at hand or the necessary assistants nor the proper surroundings for a laparotomy. I feel reasonably sure that I should have lost at least one of my cases if I had delayed operation long enough to get the necessary help to do Cæsarean section.

Fortunately, in the majority of cases, if anywhere near a complete prævia exists, nature shows a danger signal during pregnancy in the form of repeated hemorrhages, but perhaps the most dangerous of all are those in which there is no warn-

ing till the onset of labor, when there ensues a hemorrhage so appalling that it may destroy two lives in a few moments. It is in such cases that the physician must act with quick judgment and skill, for there is no time to call a surgeon or prepare for a laparotomy, and the only thing to do is a quick version.

Recent statistics, too, prove that treatment by version gives excellent results.

While willing to agree with the advocates of Cæsarean section that there are selected cases in which laparotomy offers advantages over version, until they can bring forward much better statistics than they have yet been able to offer, the profession at large will be very slow to abandon the tried treatment by version. In this connection I am impelled to quote from Martin Dooley's article on Christian Science: "If doctors opened fewer patients and more windows there would be fewer Christian Scientists."

♦ ♦

F. S. Clark, M. D.:

If no sudden emergency has arisen demanding instant action, the character of the fetal heart and the mother's general condition should guide us in deciding *when to use forceps*. If there is an abnormality in the mechanism of labor, and the head fails to advance beyond a certain point, we should not delay. If the head is at the brim, we should wait for the os to dilate, if possible, certainly as long as the membranes are unruptured, and we should wait for the head to mold, if it will, and then use the axis-traction forceps. Each case must be studied for itself, yet we will find that usually in doubtful cases the danger of interference is less than that of leaving the patient alone.

If version is to be chosen, all conditions favorable to a successful result must be present, that is, the membranes must be unruptured or but recently ruptured, there must be absence of tetanic contractions of the uterus, and there must not be elongation of the lower uterine segment. We must remember that in an ordinary breech presentation, when conditions are favorable, there is a marked increase in infantile mortality over vertex presentation. In version this is much greater, for we

disturb the relations of the arms of the child with the danger of their extending along the sides of the head, delaying the delivery, we are forced to use strong traction to draw the head into the brim, putting a great strain on the neck with its attendant danger, and in performing version the hand must be introduced into the uterus, increasing the dangers of infection.

On the other hand, in the use of forceps when the head is not fixed in the brim, there is not the need of rapid delivery as in version, and so there is not the sudden compression of the head, as in version, which may be serious to the child. In a normal labor the molding of the head is often very marked and the compression very severe, but it is so gradual that there are no serious effects if they are not allowed to last too long. Forceps delivery cannot be as gradual as this, but it can be deliberate enough in most cases to imitate somewhat normal labor in this respect and to avoid the injuries of rapid compression, which cannot be the case in version. I do not underestimate the dangers of high forceps. I also realize that some may take issue with me on this matter, but I believe that with the proper forceps and skill many more cases can be safely delivered than by version. Those who do much consultation work will, I believe, agree with me that, in many cases in which someone else has failed to deliver, it was because of a lack in just these two particulars. This is especially true in high forceps operations. With the ordinary forceps it is usually difficult to make traction in the right axis, no matter how skillful the operator. The Tarnier axis-traction forceps are the proper forceps in these cases, and with them delivery is much simplified, traction is made in the right direction (consequently less is needed) and compression of the child's head and the danger to the mother are much lessened. For these reasons I advocate forceps instead of version, and I believe they will give the best results.

♦ ♦

Henry E. Tuley, M. D.:

One of the *complications of pregnancy* that may prevent walking is a development, during the later months, of varicose veins of the leg, thighs, and perhaps of the vulva. This is frequently

a very painful condition, but much relief may be obtained by wearing an elastic stocking made to measure by any good surgical-instrument maker, or a flannel spiral bandage, the latter having to be replaced as often as it becomes loose. The elastic stocking can be washed frequently.

A contributing cause to the development of varicose veins of the leg and one not usually considered is the wearing of the encircling elastic garter below or above the knee. This form of garter should be discarded entirely during pregnancy and the stockings supported by the suspender garter.

♦ ♦

H. Hendrixson, M. D.:

In my *obstetric practice* funis presentation always become prolapse of the funis, and its etiology is but little service or interest then except in placenta prævia, or some anomalous position of structure that calls for immediate action in the interest of the mother. If the cord is pulseless when I find it, or soon becomes so, I always listen for fetal heart sounds; if none are heard, I make known the unfavorable prognosis and allow nature to deliver a dead baby.

If the cord is pulsating well and the os dilated or dilatable, I have not for years advised the doubtful procedure of reduction, but place the cord, if possible, where it will receive the least possible pressure and resort to the forceps if pains are regular and strong. If in doubt of a quick delivery by forceps—I resort to version, taking care that the cord is kept out of the way of the most solid parts of the child and deliver as speedily as possible consistent with the safety of the mother.

♦ ♦

George C. Mosher, M. D.:

In the past few years my attention has been twice called to articles in current medical literature, in which the assertion is made that *albuminuria in pregnancy* is a normal and physiological phenomenon, and therefore not of clinical significance.

The tendency of such teaching is to invite the ignoring of one of Nature's danger signals, to ease the conscience of the blame for neglect to examine the urine of pregnant patients

as a routine custom, and thus losing the advantage of the opportunity to throw around the threatened eclamptic the safeguards that she is entitled to have for her protection from the hands of an enlightened and conservative attendant.

A suggestion may not be out of place regarding urinalysis.

If a small label, printed with spaces for name, date, quantity, in twenty-four hours, the normal and abnormal constituents and diagnosis each having a blank space, and one of these labels be furnished each patient and she be instructed either by a line on the label or by personal suggestion to bring the bottle of urine with label attached on a certain day of the week, much of the irksomeness of urinary examination can be avoided, as it is all done up at one séance.

Let us remember that there is a kidney of pregnancy recognized, and, fortunately for our patients, much more frequent than nephritis (fifty-four out of seventy-eight cases, Fischer says); let us be able to assure ourselves of the probable favorable prognosis of these cases, but let us not forget that a kidney of pregnancy, so called, is often a will o' the wisp and may lead into the treacherous bogs of eclampsia, where the patient is swallowed up and we be unable to hold out a rescuing hand in answer to her mute appeal for help.

♦ ♦

Collingwood Fenwick, M. D.:

The frequency with which *breech presentation* is attended by death of the fetus emboldens me to send you a report upon a small instrument I have invented and which I believe has been the means of saving the child in five cases of breech in which I have used it.

It consists of two parts, an india-rubber pear-shaped bag measuring 3 1-2 in. long by 2 1-2 in. across, holding 2 ozs. of water. Into the mouth of this bag is screwed a long india-rubber tube 17 in. long. The tube is composed of one long piece measuring 13 in. and bifurcating at this point into two shorter tubes each measuring 4 1-2 in. long, the distance between the two tubes measures 1 in., and each tube measures one-half in. across.

The instrument is placed in position by means of a metal

sound specially made to fit the bag. The two arms are introduced between the umbilical cord, and during a pain the squeeze on the bag dilates the arms, which become larger than the cord lying between them and circulation in the fetus is unimpeded.



W. B. Sawyer, M. D.:

I will report a case of *eclampsia*. A primipara, Mrs. C. F., aged forty-three, in the seventh month of her pregnancy, family history not explained, had employed no physician or had any unusual symptoms to call for such employment until she was taken at about noon with a convulsion. Before the physician could be summoned, and at the interval of about an hour, she had the second convulsion. On the arrival of her attendant she was found in the third convulsion. Operative procedures were at once suggested and acceded to. A delay of an hour in obtaining the services of a second physician allowed the fourth convulsion. On the arrival of the two physicians the second time, she passed into the fifth. She was immediately chloroformed, the os dilated and the child removed by the feet. She recovered from the chloroform administered during this process, had no further convulsions, and made an uneventful and perfect recovery. There was no medicine administered in her case with the exception of chloroform and laxatives. The urine was found during and after labor loaded with albumin. The only question to which I wish to direct attention is as to the advisability of immediate operative procedure in a case of this kind, and whether it is ever safe to temporize and waste valuable time.

Only twice in my experience covering over twelve hundred cases has this condition been found. The element of danger is so great, the time for consideration so short, the means at hand so limited, and all the necessities for the mother so great, that for myself I can under the same circumstances never wait a minute. I believe it best to remove the child at once.



F. H. Davenport, M. D.:

There has been a growing distrust of the pessary and a corresponding faith in operation as the sole method of treat-

ment of *displacements of the uterus*, and it may be well to examine the principal reasons for this. I think the reason which has the greatest weight with the objectors to the pessary is that a definite cure of the displacement cannot be expected, and the patient is either doomed to wear the support for life, or, if she discards it, is as badly off as before. I think such an opinion is erroneous and based on imperfect and limited observation.

Some years ago I took occasion to look over and study a series of cases of retro-displacements treated by pessary, which had been under observation long enough to give definite results, and found that what might fairly be called a cure resulted in about a third of the cases. These were divided into two categories, those where the pessary was removed and the uterus stayed forward, which I called anatomically cured, and those where, even though the uterus returned to its abnormal position after the removal of the pessary, yet were free from the symptoms of the displacement, and were called symptomatically cured.

It cannot be said, therefore, that pessaries do not cure, nor do I think that these figures are as good as they would be now. There are cases where cure cannot be expected without operation. When my statistics were compiled the Alexander operation was in its infancy, and I had not begun to employ it, either alone or as an adjunct to plastic work. These cases, therefore, which are clearly only to be reached by operation should not be included. If then the question of the curability by pessary is confined to those cases where there is a choice, I am sure the proportion would be much greater than one in three.

But it may be said if even in selected cases, and with the skilled use of pessaries, only about half are cured, even with the best showing, why not operate in all cases: (1) Because some cases are better treated by pessary, and (2) because many women will refuse to be operated upon at all.

It is unwise to insist upon operation in all cases; in many it is a mistake to suggest it. There are only three ways of treating displacement, by operation, by pessary, and indirectly by

building up the general health by the well-known methods of the neurologist.

In the majority of cases, we are reduced to operation or pessary, and I feel very strongly that the man who attempts to treat uterine displacements, whether specialist or general practitioner, and neglects or condemns treatment by pessaries, is not fair to his patients. I feel this the more strongly because as a result of a considerable experience in the treatment of these cases this method has grown more and more simple as time has gone on.

In the first place, in my own mind, the number of displacements which have a pathological significance has reduced itself to two, retrodisplacements and prolapse. The first will include retroversion and retroflexion, inasmuch as it is rarely necessary to differentiate between them. I have never seen a retroflexion without a retroversion, and a slight degree of flexion added to the version does not usually modify either the symptomatology or the treatment.

Prolapse is not a common affection except as a concomitant and late complication of retroversion.

Anteversion rarely gives rise to symptoms, and anteflexion is not a displacement, but a deformity.

About one in five of all cases which consult me have a retroversion, and retroflexion and prolapse are rare.

If the displacements themselves can be reduced to such simple terms, quite as much may be said of the pessaries for their relief. I have practically reduced the forms of pessary which I use to three varieties. As a matter of fact I treat all cases of retroversion with the so-called Langford pessary. This comes in all sizes which need be employed, and fulfills, better than any other I know, the necessary conditions. It is easily introduced and very comfortable. Where there is retroflexion necessitating a longer arm I use the one which is sold under the name of the Smith pessary. For prolapse the Langford pessary answers in all cases where the vaginal outlet is narrow enough to exert some retentive power, and where that is not the case the large-caliber Meig's ring will be found eminently satisfactory. A few other pessaries, as the bulb,

the old-fashioned Hodge, and the Chadwick are very occasionally used.

I will add a few general principles which, if adhered to, will make the treatment of displacement by pessary a success in the greatest number of cases possible.

(1) Study the cases. Determine the probable length of time that the displacement has lasted, its possible cause, the symptoms it has caused, their order of occurrence, and the relative importance of the general and local manifestations, and from these data form a careful opinion as to the chances of cure by one or the other methods of treatment.

(2) In a case of retroversion or flexion, always replace the uterus before adjusting the support. The pessary should not be relied upon to do this, as only in the rarest case will it be possible.

(3) In fitting a support choose one which fits exactly, if possible; but if not, have it rather too small than too large.

(4) The ideal pessary is one which supports the uterus perfectly, and without the patient being conscious of its presence.

(5) This patient should be kept under observation while she is wearing the pessary, and seen at regular intervals, preferably after each monthly period, for the cleansing of the support and its replacement.

(6) When it is deemed wise to make an attempt to go without it, it should not be removed at once, but a smaller one substituted to be worn a month, and then a still smaller one, which may then finally be removed.

The pessary, the use of which twenty-five years ago was the sole method for the treatment of these affections, suffered with the development of surgical methods a temporary neglect. It is now regaining its position to some extent, and the indications for its use are better understood, and are upon a more scientific basis.

In uncomplicated cases in young women who have not had treatment, operation should be advised. Operation is the only method which holds out prospect of cure in cases complicated with lacerations, enlarged uterus, or much prolapse. In other cases, especially where the uterus is small, where symptoms have been present but a short time, and particularly if they are

associated with neurasthenia, treatment by pessary will often result in a cure. In such selected cases cure may be expected in about one-half. Even in cases where cure cannot be hoped for by pessary, its temporary use is often of value in relieving symptoms and in aiding to restore the general health.

♦ ♦

W. W. Kerr, M. D.:

As a general practitioner, sometimes seeing the results of surgery and gynecology, my experience in the results of operations such as *the removal of the ovaries for relief of epilepsy*, is unfavorable. I have had two patients, one about twelve years ago, the other about sixteen years, who were operated on because they had epilepsy. The ovaries were removed, although they were apparently healthy, but the operation was undertaken with the idea that, since this nervous trouble developed simultaneously with menstruation, the epilepsy might cease if the menopause were hastened. In the first case the epilepsy ceased, but after eight months it returned, the patient suffering as much as she did before. In the other case the convulsions were absent for three months. The temporary improvement made us hope for better results, but it was only the temporary improvement that appears to follow all major operations. When a considerable piece of the skull is removed in epilepsy the convulsions cease for some time, and a severe mental shock will produce similar results. The most interesting case I saw was a lady subject to epilepsy, who fell down a well forty feet deep, and the result was that she had no convulsions for a year, and I think the improvement in oöphorectomy is entirely on the same basis. The shock affects the function of the nervous system for a certain length of time.

♦ ♦

L. J. Woollen, M. D.:

Many years ago I saw a case of central *placenta prævia* in consultation with a young doctor who found that with each pain the patient flooded severely, while in the interval between the pains no blood flowed externally.

He therefore gave her large and repeated doses of morphine to "stop the pains." When I saw her she was semi-narcotized.

The os was dilated to the size of a half dollar, but not dilatable. I placed a small sponge tampon in the os and inserted a much larger sponge that filled Douglas' cul-de-sac and pressed against the smaller sponge. After this I packed the vagina as full of absorbent cotton as was possible, first using the catheter to draw off the urine. I placed a good-sized compress against the vulva and confined the whole dressing with a "T" bandage. Knowing that she had borne several children without trouble and finding no obstacle in the easy passage of the child's head, I advised the doctor to give the patient small doses of ergot at suitable intervals and told him that after a while, when the pains became very hard and continued, he could remove the tampon, and if the hemorrhage returned to apply the forceps and deliver the child.

After I left, the doctor finding that the hemorrhage had ceased, and the pains had not greatly increased, concluded to go home and take some rest. Early next morning a messenger came for me, saying that the patient for some hours had been suffering severe pains and something must be done to relieve her.

Before I reached the house the pains had increased to such an extent that the contractions of the womb had forced out the tampon, placenta, and child in a mass. There had been a trifling loss of blood from the time I used the tampon until spontaneous expulsion of the child occurred. Convalescence was as satisfactory as it was in previous confinements.

I state this case to show what nature, with a very little assistance, is sometimes able to accomplish.

Translations.

HEMATURIA IN PREGNANCY.

Bouman (Monats. f. Geb. u. Gyn.) has collected seventeen cases in a thesis (Amsterdam, 1901). The blood in all was clearly from the kidney, and disappeared after delivery; it reappeared in several cases in a subsequent pregnancy. Bouman doubts if the blood represents "essential hematuria" as

recorded in five published cases. In two of these cases a kidney was removed and no histological change detected (Schade, Klemptner); in the others nephrotomy was practiced, but nothing more done, as the kidney showed no naked-eye appearance of disease (Broca, Loumeau, Debesargues). Whether this affection be a form of hemophilia or due to some neurosis pathologists cannot as yet determine. Bouman sees no reason to doubt that in his seventeen cases of hematuria in pregnancy there was renal disease already before conception, latent or showing very mild symptoms. The pregnancy aggravated the organic affection, either through congestion or auto-intoxication. The hematuria was noted as ceasing abruptly in one case when the membranes ruptured. In one of Guyon's cases blood reappeared during lactation. Disease of the kidney has been detected in more than one instance; this recurrence of hematuria a year after delivery in another case of Guyon's led to the discovery of tuberculosis of the kidney. Van Herson records a similar case, and Treub reports recurrence of hematuria without pregnancy. Yff (*ibid.*) reports a case where hematuria set in during a fourth pregnancy; it was clearly renal, and disappeared after delivery. It transpired that abortion had been induced in the second month of the second pregnancy on account of renal symptoms.

ACUTE ŒDEMA OF CERVIX IN PREGNANCY.

Varnier (Comptes Rendus de la Soc. d'Obstét. de Gynéc. et de Péd. de Paris) notes that Guéniot described this condition thirty years ago as œdematous elongation of the cervix with prolapse in pregnancy. Varnier's patient was aged twenty-seven. Her first pregnancy (1890) and also her second (1892) were normal. In 1894 Monod removed a cystic tumor of the left ovary. Recovery was rapid, and the period was regular until January, 1898. In August, 1898, she was quite a martyr to facial neuralgia, and got up in the middle of the night to pace about the room. Bearing-down pains suddenly set in, and then she found that something presented at the vulva. Varnier examined the vulva, and published a good photographure of the appearances. The cervix protruded for over three inches beyond the vulvar cleft, and formed a mass over eight inches in circumference, so tense and shiny as to reflect like a mirror. The os externum lay at its extremity; the vaginal mucous membrane formed a kind of pedicle. The bladder had not descended. The œdematous cervix was quite insensitive to puncturing, which allowed of the escape of quan-

tities of clear serum. The prolapse was reduced by taxis after placing the patient in the Trendelenberg position. Eleven days later it recurred; the midwife in attendance reduced it. Three weeks later the cervix again came down when the patient was standing up. She lay down in bed, and the cervix reduced itself within two hours. The last prolapse took place eleven days later, when the patient was in bed; spontaneous reduction occurred. Labor set in on October 6, 276 days after the end of the last period. The presentation was transverse and the cervix remained long, though at its normal level in the pelvis for many hours. During the uterine contractions the abdominal cicatrix retracted deeply. At length version was effected, the head being brought down; then the cervix began to become effaced, and the os dilated. A female child, weighing nearly seven pounds, was delivered within thirteen hours from the beginning of labor. Three weeks later Varnier explored the pelvis. There was a certain amount of prolapse of the anterior vaginal wall produced by straining. The uterus was retroverted, the cervix was big, but measurements showed that there was no hypertrophic elongation. The lengthening during labor was transitory, and solely caused by œdema. Varnier dwells on the fact that in this case, where the œdema was very severe, labor did not occur till term. The body of the uterus did not share in the prolapse.

OVARIAN CYST AND PREGNANCY.

Condamin (Lyon Méd.) records two cases in which ovarian cysts contracted adhesions to the under surface of the liver and caused symptoms comparable to those of torsion of the pedicle after labor. In the first case the abdomen remained large after the birth of the child, intense abdominal pain persisted, meteoric vomiting and pyrexia occurred. Laparotomy was not performed till a fortnight later. Soft adhesions were found uniting the cyst to the transverse colon, the small intestine, and the mesentery, and were divided. The adhesions to the liver were so firm that portions of the cyst wall were left behind. In the second case the cyst ruptured during labor. The following day the abdomen increased in size and became painful, the temperature rose slightly, and bilious vomiting occurred. The peritoneal symptoms were thought to be due to twisting of the pedicle, and intervention was deferred for a month. On opening the abdomen colloid material escaped. There were several ruptures of the cyst wall, and the adhesions to the liver made it necessary for a portion of the cyst

wall to the left attached. Both patients made good recoveries. The hepatic adhesions are easy to understand, the cyst being raised by the pregnant uterus, and being rubbed against the liver by respiratory movements. The cyst being fixed above, the descent of the uterus after labor causes traction on the pedicle and suppression first of the venous and afterwards of the arterial circulation. The diagnosis of hepatic adhesions cannot be made during pregnancy, but afterwards the condition may be distinguished from torsion of the pedicle by the presence of a band of dullness extending from the iliac fossa to the lower border of the liver. Condamin believes that, if discovered at any time before labor, the cyst should be removed to prevent the peritoneal accidents caused by dragging on the pedicle. But, if the cyst escapes notice until the occurrence of these accidents, he advises delay of operative interference until the cessation of the peritoneal reaction, unless the patient's condition becomes too serious for delay. In both cases, before any attempt was made to extirpate the cyst, the pedicle was ligatured and divided, and this maneuver was found of great service in preventing serious hemorrhage from the friable cyst wall.

STRANGULATION OF THE UTERUS IN A RING PESSARY.

G. Wiener (Münch. med. Woch.) was called to see a spinster, aged seventy-three years, who complained that she had been unable to pass water for three days. Eleven days previous she had consulted Von Winckel on account of a prolapse. The fundus only was inside the true pelvis, the vagina was almost completely invested, and the vaginal portion of the cervix was much hypertrophied. Winckel succeeded in extracting a vulcanite ring pessary from behind the uterus, the presence of which could not be accounted for by the patient. After syringing the vagina out, Winckel kept the uterus in place by a ring pessary with a perforated septum. The pessary had produced no symptoms for eight days, after which time, on straining heavily at stool, she noticed that a portion of the prolapse of the thickness of a finger again protruded, and caused her pain. During the next six hours the prolapsed portion became as large as a fist. Wiener found a mass of the size of a man's fist protruding from the vulva. It was bluish-black, and a small opening could be detected in the lower part. With difficulty he passed a finger at the side of the prolapse, and felt the pessary with the holes in the septum all round the

cervix, so that it was evident that the cervix had passed through the central hole of the pessary. This hole appeared later, and measured one-half inch in diameter. Neither reduction nor yet the passage of a catheter could be carried out. The patient was anæsthetized, and the pessary was seized by bone forceps and removed; after which, the bladder was emptied of 700 c. cm. of turbid urine. The protruding mass could not be reduced, and as it appeared desirable to attempt to save the patient from operation, wet applications were applied. However, gangrene set in; the cervix was therefore removed by Paquelin's cautery. The patient recovered.

NOCTURNAL CHYLURIA IN PREGNANCY.

Meinert (Centralbl. f. Gyn.) observed this condition in a woman, aged twenty-five. She had been three years married, and her sole previous pregnancy ended normally; though healthy, she was unable to suckle the child. On the present occasion the last period occurred in May, 1900, and fetal movements were felt in October; a week or two later the patient noticed that the urine passed in the day was clear, while that passed at night was turbid, a character which increased until in December it appeared like milk. Dysuria set in, owing to small shreds which collected and blocked the urethra. On December 22 complete obstruction occurred. Meinert passed a catheter and drew off urine which bore the external appearances of rich cow's milk, and proved on chemical examination to be highly chylous. Excepting on eight nights—when, for no reason that could be detected, the urine was quite clear—chylous urine was passed at night until spontaneous labor occurred on February 6, 1901. Between 8 A. M. and half an hour after midnight the urine passed during the latter part of the pregnancy was clear, quite normal, but of low specific gravity, about 1015. From 12.30 A. M. till 8 A. M. the chylous urine was excreted. After delivery the chyluria disappeared suddenly; indeed, the urine was only once absolutely milky (second day of the puerperium), and only once more (seventh day) turbid; on both occasions the urine was passed in the night. There was no milk in the breasts, and the child was sickly and difficult to rear. Both during and after the continuance of the chyluria the patient was in good general health, nor could any visceral affection be detected.

INVERSION OF UTERUS AND CERVIX FROM
FIBROID.

Amann (Centralbl. f. Gynäk.) admits that in the majority of cases "total" inversion of the uterus means that the body alone is turned inside out, passing through the canal of the cervix, which remains in place. But he notes that McClintock, Fritsch, Schauta, and Küstner have described authentic cases of total inversion strictly so called, the cervix being involved as well as the body. His own patient was forty-one, and had borne two children, the youngest was fourteen years old. Bearing-down pains had troubled her for several years, and for twelve months the uterus, according to her account, had been down, though she could always push it up. A fortnight before she consulted Amann a fresh prolapse occurred as she was lifting a weight. It grew big, and on inquiry it was found that before the second prolapse progressive emaciation had occurred, with free floodings, fever and rigors. The tumor was as big as a fetal head: it was a sloughing fibro-myoma. On careful scrutiny it was found to spring from the fundus, but had contracted an adhesion to the posterior vaginal wall, forming a second pedicle broader than its normal attachment. This tumor had evidently protruded into the vagina for some time. The relation of the uterus to the tumor was not determined without difficulty. A circular groove at the uppermost part of the mass proved to be not the os externum embracing the inserted body, but the os internum, above which lay the everted cervical canal traceable on to the vaginal wall. The bladder was not involved in the displacement of the uterus. The patient was in a septic condition; nevertheless the uterus was amputated with the tumor and the posterior vaginal wall around its second attachment. The patient did better for a short time, but the septic infection ultimately caused her death.

CHOREA GRAVIDARUM.

Leon Launay (Thèse de Paris) refers to the recent views of the pathogenesis of chorea in pregnant women, the observations

of Pierre Marie and Gilles de la Tourette having lately given support to the view that chorea gravidarum is a different malady from Sydenham's chorea. The same authors contended that chorea gravidarum is a complex of hysterical phenomena mingled with tics, and that its position as a nosological entity is rendered doubtful, and moreover that its prognosis is different from the chorea of Sydenham. Professor Joffroy has recently (1900) maintained that in pregnant women it is possible and necessary to distinguish between choreiform hysteria and true chorea. On the other hand, Professor Raymond and Pau-Blocq hold that chorea gravidarum is not essentially different from Sydenham's chorea. After a description of the choreiform jerks, etc., Launay notes the frequency of echolalia and coprolalia in the chorea of pregnant women. Cases are cited at length illustrating true chorea gravidarum (fifteen in all.) It is important to recognize that there is a parallel between this disease and hysteria as regards the following symptoms, namely, rachialgia, ovarian hyperæsthesia, globus, and laryngeal (functional) disturbances, and that both the chorea and the hysteria of pregnant women may occur together in subjects with exophthalmic goiter. He concludes (1) that a considerable number of cases published in medical literature as examples of chorea gravidarum belong to hysteria; (2) that others are maladies des tics; and (3) that others again are chronic chorea (Sydenham's chorea), lighted up or re-excited by pregnancy. But that after excluding all these forms there remain (4) true and incontestable cases of chorea gravidarum proper (such as those published by Potain, Brouardel, and Germain Sée), and that in essence it is identical with Sydenham's chorea, its peculiar features being due to its occurrence for the first time during pregnancy.

ABORTION; PLACENTA RETAINED TEN WEEKS;
NO SEPSIS.

Tissier (Bull. de la Soc. d'Obstét. de Paris, February 20, 1902) reports an instructive case of placenta retained after abortion. The patient aborted in the third month of her second

pregnancy on December 12, 1901. She left the lying-in establishment where she had been nursed on the 23d, and returned to household duties. All went well till February 18, 1902, except a few shows of blood, but on that date flooding set in, and she was admitted into a hospital. Next day she appeared anæmic, without any rise of temperature. The cervix was completely effaced, and the os externum dilated to the diameter of a two-franc piece. A placenta-like body could be felt lying in the inferior segment, which was much distended. Tissier simply pressed on the uterus from the abdomen and vagina, and the placenta was thus brought away entire. It weighed under three ounces, and appeared somewhat like a sheep's heart, rather fatty; at certain points it was fibrinous. There was not the slightest odor nor evidence of putrefaction; yet it had lain in the uterus from December 12 to February 19—that is, for sixty-nine days, and actually within a few hours of ten complete weeks. The uterus contracted well after the extraction of the placenta, nor could any fragments of membrane be felt in its cavity, which was drained after swabbing of the endometrium. Tissier once removed a placenta retained fifty-four days, or nearly eight weeks, after an abortion. It looked like a lamb's brain. Fragments of membrane are not rarely expelled late in the puerperium, free from signs of sepsis. Tissier, while admitting that the above facts are of importance and interest, is careful to add that, as a rule, retention of placenta, whole or otherwise, is a serious complication of labor or abortion.

OVARIOTOMY AND IDEAL CHOLECYSTOTOMY.

Strassmann (Centralbl. f. Gynäk.) recently performed ovariectomy in two patients, and also removed calculi from the gall bladder, which was afterwards sewn up ("ideal" cholecystotomy). The first patient was a multipara, aged forty-two. The ovarian tumor and the distended gall bladder were easily diagnosed. The former was suppurating; after its removal the median incision was prolonged upwards, and the distended gall bladder fixed with interrupted sutures to the

peritoneum around the upper angle of the wound, and opened. Then a cholesterine calculus as big as a nutmeg was removed. The ducts were free. The wound in the gall bladder was closed with silk sutures, left long, and afterwards removed. Recovery was rapid. In the second case death from recurrence of the ovarian growth occurred, and the state of the gall bladder could be investigated. The patient had a high temperature at the time of the operation, and two papillomatous cysts were removed; one had ruptured. The median incision was prolonged, as in the first case, the gall bladder fixed by a circle of interrupted sutures to the wound, opened, and emptied of twenty-eight faceted calculi. The ducts were then found to be free. Adhesions were broken down, the wound in the gall bladder was closed with silk threads, and afterwards with cat-gut Lembert suture. A plug of iodoform gauze was placed in the upper angle of the wound. The sutures in the abdominal incision were removed on the tenth, those in the gall bladder on the fourteenth day. Two months after the operation the patient was operated upon by König for intestinal obstruction. Death ensued, adeno-carcinoma had developed in the rectum and also in the liver. The gall bladder was quite healthy and fixed to the parietes. Strassmann insists that the liver, which after death was found to contain enormous masses of metastatic deposit, was quite healthy when he operated; possibly a small cancerous deposit in the rectum was then overlooked, or he inoculated the rectum and liver with morbid growth when emptying from the peritoneal cavity a mass of papilloma which had escaped out of the cyst which had ruptured.

RUPTURE OF UTERUS: HYDROCEPHALIC FETUS.

Rudaux (*Comptes Rendus de la Soc. d'Obst. de Gyn. et de Paediat.*) reports a case at Beaujon Hospital, under Ribemont-Dessaigues. The patient was a workwoman, aged thirty-six. She had carried three children to term; the children were all reared. Two evenings before admission labor pains came on at the eighth month, but were preceded by spontaneous rupture

of the membranes some hours previously. When the pains set in they grew stronger and stronger till the afternoon, when they suddenly ceased. There was flooding, but the patient did not call in a doctor till twenty-four hours later. He found her in a state of collapse, and sent her to the hospital. She was pulseless, with temperature at 94° ; the fetus could be felt under the very thin abdominal walls, and the deep laceration was detected anterior to the os externum and to the left, while the placenta apparently presented by its edge on the right of the cervix. Thick, syrupy, black fluid, distinctly fetid, escaped from the vagina. Through the left fornix a large hard mass, evidently a deformed fetal head, could be felt in the abdominal cavity. The patient was clearly sinking; subcutaneous injections of caffeine, ether, and artificial serum were administered, and Ribemont-Dessaignes opened the abdominal cavity. The fetus and its appendages lay free in the abdomen to the left of the uterus, and were extracted without trouble, but they were fetid, and as the uterus was being removed the patient died. The fetus was a female, weighing ten pounds; the occipito-frontal circumference of its cranium was $21\frac{1}{2}$ inches. Had the patient applied earlier for relief her life might assuredly have been saved.

JAUNDICE IN PREGNANCY.

In reporting two cases of jaundice in pregnancy, H. Benedict (*Deut. med. Woch.*) enlarges our knowledge on this subject.

The first patient was a woman, who was married at 26 years of age, and who suffered from icterus during her first pregnancy. The child was born at seven months, and died a few days later. It was not jaundiced. The mother recovered from the itching of the skin and the jaundice during her lying-in, but in her second and third pregnancies both jaundice and premature labor again occurred. In her 36th year she became pregnant for the fourth time, and at the fifth month she was admitted into the gynecological clinic in order that an attempt to prevent a premature labor might be made. The

skin was brownish-yellow, dry, and covered with excoriations, the result of scratching. The liver was enlarged, the edge being felt three fingerbreadths below the costal margin. Its surface was smooth, its consistency hard; the spleen, too, was enlarged. There was a systolic murmur heard at the apex and over the pulmonary area. The blood, on being examined, showed 3,800,000 red and 7,000 white corpuscles, and 70 per cent. hemoglobin. The urine was acid and high-colored, 1020; it contained no bile pigments, but a considerable quantity of urobilin. Indican not increased. No glycosuria was produced by taking 100 and 150 grams of dextrose. The stools were colored, contained fat and hydro-bilirubin. Labor took place in the seventh month, and the fetus, which was not jaundiced, died shortly after the birth. The jaundice began to disappear during the puerperium, but the enlargement of liver and spleen persisted.

The patient's sister at this time was pregnant for the first time and was also jaundiced. Her mother and her elder sister had neither had any such symptoms during a pregnancy, nor was there any other near relation who had similarly suffered. The sister was 25 years of age. On examination, the same clinical picture was found as in the first patient. She, however, completed her pregnancy to full time, and was delivered of a living child. In the second pregnancy the itching of the skin again returned, but she aborted in the third month, before the skin became colored. In discussing the cases, Benedict says that only two forms of jaundice in pregnancy are recognized, the first being caused by compression of the common bile duct by the increasing size of the uterus, and the second by acute yellow atrophy. It was obvious that the two sisters had neither of these forms. It would be conceivable that a gastro-duodenal affection might cause a catarrhal obstruction to the bile ducts, or even that this might be primary, but the slow onset of the icterus after weeks of pruritus speaks against this theory. He offers as a suggestion that there might be some primary parenchymatous changes, or that the liver had taken on a vicarious function, but owns that a certain explanation is impossible. The fact that two sisters were affected was, from the nature of the malady, and from its repetitions, certainly no

chance coincidence, but must be explained as a "family" disposition.

PSEUDO-CORNUAL PREGNANCY: DIAGNOSTIC DIFFICULTIES.

Paul Bar (*Bull. de la Soc. d'Obstét. de Paris*) has already dwelt upon irregularity of the form of a uterus in pregnancy, the organ being anatomically normal in development. One cornu seems to bear nearly the whole of the ovum; it then feels very much softer than the rest of the uterus. As in many cases where part of an organ becomes relatively soft, it gives the impression on palpation as though it were movable, and therefore a tumor separate from the uterus. Extra-uterine pregnancy has been diagnosed more than once. In two cases Bar was able to examine the interior of the uterus immediately after labor. In both he discovered that the placenta was inserted on the side which was over-developed and unnaturally soft. Bar observed recently the pregnancy of a woman three years after removal of a cyst of the right broad ligament with the corresponding appendages. He found that the body of the uterus was hard: the left cornu was not only softer, but felt as though separate—indeed, it suggested a gravid tube. As pregnancy advanced this isolation of the left cornu grew more marked, but the body of the uterus also began to soften. The next change was the gradual fusion of the apparently separate parts, which became uniformly soft till at length the whole was recognizable as regularly globular pregnant uterus. Insertion of the ovum close to the uterine ostium of the tube in a normal uterus is the origin of the noteworthy condition which Bar describes.

INTRA-UTERINE DEATH.

Boissard (*L'Obstét.*) admits that death of the fetus may be inexplicable. Syphilis, faulty or dangerous position of the cord, placental disease, and malformations may be quite absent.

Molar pregnancy was followed in a case under his own observation by sudden death of the fetus in the next gestation. Strangulation by the cord round the neck is one cause of sudden death of the embryo. Boissard records a case showing the remote effects of syphilis after an interval when the uterine functions proceed normally. A patient of his married a syphilitic man, conceived and gave birth to a dead macerated fetus. The husband died, and the patient married a healthy man by whom she became the mother of a healthy child, still living and well. Lastly, she became pregnant for the third time and was delivered in the eighth month of a dead macerated infant. Boissard has for many years induced labor in the last months of gestation directly he felt certain that the child was dead, a practice which gave capital results and allowed the patient to return to her duties free from all danger of infection.

PRIMARY OVARIAN PREGNANCY.

Mendes de Leon and Holleman (*Rev. de Gyn, et de Chir. Abd.*) have drawn up a summary of this variety of pregnancy. One case has recently come under their own observation. The patient was 30 years old, the previous (third) pregnancy had occurred over four years previously, ending in abortion, and from that time the patient was perfectly regular. She seems to have contracted gonorrhea. In July, 1900, she had an attack of hypogastric pain followed by hemorrhages a week after the date of the normal appearance of the period. The hemorrhage continued for ten days, and then the period was seen again and continued so till October, when there was show, without clots, for three weeks. Tympanites set in, and the patient was examined by De Leon and Holleman on November 4, 1900, as she complained of incessant pains in the left side of the abdomen. There was a swelling of the size of a fist in the left iliac fossa. The vaginal incision was found to be insufficient, so abdominal section was performed. The mass on the left side of the uterus was removed, and Douglas's pouch was drained by a strip of iodoform gauze passed through the vaginal

incision. The patient recovered. The tube and mesosalpinx was separated from the ovary, which was fused to a well-organized coagulum of greater bulk than itself.

The authors give a good account of the pathological appearances of the clot, with plates. Chorionic villi, well formed, were found in the portion of the clot adjoining the various tissue. The authors therefore consider that this is an instance of gestation beginning in a Graafian follicle as in van Tussenbroek's case. They quote Rollin, who in 1889 wrote on ovarian hemorrhages. He collected 11 cases of ovarian apoplexy, and in only one was there any suspicion of pregnancy. The microscope was used, but no products of gestation were discovered. [The above case was briefly reported by Mendes de Leon in the *Centralbl. f. Gynäk.*, 1901, p. 957. The report was included in five lines, but the patient's age was given as 31, and the last normal pregnancy stated to have occurred eight years before the ovarian gestation.]

REMOVAL OF FIBROID THROUGH VAGINA WITHOUT INTERRUPTION OF PREGNANCY.

Seeligmann (*Centralbl. f. Gynäk.*) was consulted by a lady, aged 34, whose period did not appear in June, 1901, but severe hemorrhages without menses set in. By the time that the pregnancy had reached the end of the first month, the uterus was of the size normal in the middle of the third. In August a serious attack of bleeding occurred. The os was dilated to over the circumference of half-a-crown by a big, tough submucous myoma. This dilatation had taken place within twenty-four hours. The tampon was applied, but in vain, and the patient had to be sent to a nursing home. Several artificial serum injections were made and the tampon was not disturbed, but the patient was kept at rest for a few days. There was no rise of temperature. On the fifth day Seeligmann was able to remove the presenting myoma by morcellement, until he reached the posterior wall of the uterus. The cavity, which extended as high as the level of the umbilicus, was packed with

iodoform gauze, as it was not possible to do more under the circumstances. On the sixth day, when the temperature reached 100.5° , the tampon was removed; afterwards recovery was rapid, and at the end of August the patient was quite well. The pregnancy was observed as it advanced very regularly until she was delivered spontaneously on March 2, 1902, after labor had lasted thirty-six hours. The myoma was of the size of a child's head. Seeligmann notes that this case shows how well the pregnant uterus tolerates operative measures.

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CONTROL OF WOMEN IN LABOR.

BY SHELDON LEAVITT, M. D.

There are few periods in a woman's life when she is less amenable to control than during parturition. Do you ask why? Because she is under the power of so great distraction. "That is hardly true," you may respond. "It is a period of great mental concentration, all the thought being focused upon the agony which casts her literally into the sea of anguish." I grant the truth of your contention, there is mental concentration as well as distraction, and yet I maintain my postulate. The mind is intent on, the painful phenomena of the parturient act, to the point of absorption, but is not thus centered on the means of extrication. The surges of pain, with the fears thereby aroused, distract by the very terror that they awaken. For the time being the woman is self-absorbed.

Now, in the face of all this, I want to add that there is no period in a woman's experience when the whole mental energy can so easily be brought under the power of suggestion. The mental faculties are in a state of disorder; and fears of

* Read before the Illinois State Society.

sundry kinds and shapes stalk abroad. She has probably come down to labor with various apprehensions upon her mind, and now that the struggle, so long dreaded, is on the culmination, a catastrophe is looked for.

It is to a distracted mind, then, that the accoucheur comes at the hour of parturition, as the pilot comes to the storm-tossed vessel on a rocky coast, safely to conduct her into a quiet harbor.

It is a trying position, this of the accoucheur, owing to his patient's mental agitation; and the difficulties of the situation are greatly augmented by the presence of friends and relatives who are often as hypercritical as they are hyperæsthetic. Safely to bring in both crew and passengers, under existing conditions, is no easy task.

Since the best men will occasionally fail, it is important to furnish one's self with the most efficient qualifications; and what I deem to be such is a part of the task set for myself on this occasion.

And, first of all, let me abruptly say that no man is qualified to act the part of guide to a distracted and capricious woman in labor, who has not first brought himself under good discipline. He who would instill the composure of self-possession must feel the soothing power of it in his own soul. We readily communicate our mental states to those whom we take in hand. An agitated attendant at such a time can add no confidence to the occasion. It is only the self-poised who can confidently arise and say, "Peace, be still." Who is the self-poised, calm soul, at such a time? Surely not he who feels his own deficiencies of knowledge, or his own lack of self-mastery. Not he whose mental breadth is restricted by dominating habits; or whose mental horizon is narrowed to the compass of illiberal sentiment. Least of all by one whose motives are sordid and whose genuine sympathies are dwarfed.

"Strange conditions these," you say. "You would make of your ideal accoucheur a phenomenon." Not at all; but I would have him a well-rounded man. In such we find the conditions of success at their maximum.

Whatever your qualifications, you will find the best responses along certain lines, some of which I may be able to

point out. I have indicated what should be our personal qualifications; with these we should aim to furnish ourselves. We all admire the genuine; but, at the same time, we should not forget that a degree of attainment can be achieved by assuming to possess some things that we really lack. In any event it is well to understand the art of success. Let it also be borne in mind that the principles herein given are applicable not alone to the control of women in labor, but to the achievement of any undertaking wherein success is dependent on acquiring a control of others. I shall state them briefly, and I accordingly beg you to follow me attentively. What I give is nothing new or startling; but it is valuable.

Then remember, first, that positiveness is of prime importance. Indications of uncertainty are always subversive. Know your own mind, and let your patient know it from the start. But the exercise of this positiveness, to be most effective, should antedate the labor. If you get a patient well under control, so that there shall be no hitch during the stress of the parturient act, begin with the pregnancy. Get her in training early, and then you will find discipline telling well at the close. A good way to do this is to insist on seeing her occasionally, so as to maintain surveillance. Mark out a course of self-management for her, and constrain her to a line of action. It matters not so much what your directions be, so long as they be rational and harmless. They are given to aid in establishing discipline. They serve to give an impulse in the right direction. As for myself, I allow the patient to go as she pleases after the subsidence of the early gastric symptoms until about the seventh month, charging her meanwhile to appear whenever there are the slightest indications of physical disturbance. Should I find her negligent, I sharply chide her therefor. Toward the seventh month I impress upon her the necessity of supplying me with a sample of urine every week. Should my patient become remiss, I write a stirring letter urging the value to herself of the precaution. At this time I also prescribe a special vaginal douche (Colpos), and usually put her on occasional doses of a remedy, calculated, as I believe, to produce a salutary effect on the approaching labor.

I hold the patient to these regulations, and find good mental discipline in so doing. Besides, I thereby obtain, as I verily believe, the helpful effect of favorable suggestion. Train your patients to obedience if you want to make them docile. By so doing you obtain a mental ascendancy over them which will never be wholly lost.

When you assume charge of labor in such a case, you will follow to a facile conclusion the long period of training to which your patient has been subjected. The several parts of the program will then fall as naturally into place as the cogs of revolving wheels; and there will be no indications of alienated confidence on the part of those concerned. But the control must be maintained. Be decisive and firm, but gentle. Assume the rôle of leader, while, indeed, you act the part of commander. Do not be blown about by every wind of opinion; hold to a steady course. Should the patient, or friends, at any time disclose signs of that restless apprehension which precedes consternation, resort to emphatic assurances calculated to steady them. Do not give out an uncertain sound. Let there be no flying-the-track. It matters not what the conditions; rise superior to every emergency. Have a well-considered way out, every time.

This leads to the second important element of success in managing women in parturition, namely, self-composure. This, of course, you cannot have without self-confidence; and self-confidence should always be based upon thorough qualification. Do not undertake to sail a craft over a treacherous sea with but a meager knowledge of your craft's essential features and the science of navigation. To be self-confident on an insecure foundation is but to invite disaster. Should you trust yourself to anything unsubstantial, you will be sure to come to grief.

Being well furnished for your position, then be calm and self-possessed. If you are uncontrollably nervous and irresistibly disconcerted under a sense of responsibility, find some other occupation, as you are unfitted for the trying emergencies of obstetrical and surgical practice. Fear is no more infectious than courage; therefore be calm. No matter what critical, or even appalling, exigencies arise, preserve your composure.

It requires a strenuous act of will, mayhap; but it is your will that must be to the front. Let not the throes of eclampsia, the pallor of syncope, nor the red stream of post-partum hemorrhage, cause a tremor. Hold yourself and you will hold the rest. Hold yourself, for your very composure is the best guaranty of a favorable conclusion of the incident.

It is chiefly by the application of these principles of treatment that we can acquire and maintain proper control of women in the trying ordeal of labor. The efficiency of the application will depend much on certain details which I cannot be expected here to recite. To make them effective they require a background of powerful nerve tension, which has for backing a combination of interest, enthusiasm, energy, and faith. Remember, too, that suggestions are not given their force by the volume of the tones in which they are made. They may be uttered in whispers and yet carry tremendous power. It is the energy behind the rifle ball which determines its effect. It is a law of military ordnance that a gun shall be at least a hundred times heavier than its projectile. Just so is it in this instance, the weight of the man behind the words is what determines the effect. Accordingly, the man of mental and moral avoirdupois, by the very force of his nature guides with steady hand and encouraging speech. The impression is re-enforced by the calm strength of his bearing under the most trying conditions. Such an accoucheur is the type that we all shall do well to emulate.



REFLEXES FROM UTERINE AND OVARIAN
DISEASE, WITH ILLUSTRATIVE CASES.*

BY WM. FRANCIS HONAN, M. D.

Surgeon to the Metropolitan and Hahnemann Hospital.

The term reflex has been very much overworked, if not actually abused, and has very frequently furnished the basis for what seemed to be a most weighty and scientific opinion. The patient to whom the medical attendant carefully explained the origin of the symptoms complained of was left with the comforting thought that at least the malady was not prosaic, if, indeed, bewildering. Furthermore, this word has been very frequently employed, in fact the most important term in the entire *armamentarium verborum* of the specialist. It came as a kind of saving grace, for what would the oculist do who applies lenses for the relief of errors in refraction, which prevent your seeing as well as you did without them but save you a train of symptoms referable to the head or stomach? The laryngologist, the gynecologist, the orificialist and his philosophy depend entirely on educating the public into the mysteries of that vague and, to them, incomprehensible reflex. Each in his turn reports wonderful cures in his department, shows the removal and entire dissipation of a set of troublesome symptoms by recognition and correction of some irritation remote from the locality complained of. Possibly the difficulty has hitherto resisted many forms of treatment in supposedly competent hands. Thus far in this instance the result is all that can be asked for, and redounds to the credit and skill of the physician. The danger, however, is that, emboldened by the success in one or a few cases, reflex irritation as a causative factor of the disease is the entire chapter on etiology, and often found, I regret to say, to have existed only in the mind of the observer. I have seen some of my very capable professional brethren so tinctured with that relief to such an extent as to very much mar what would have otherwise been splendid professional attainments. Viewing the situation for the past ten years with an un-

* Read before the New Jersey State Homeopathic Society.

biased mind, the dangers of fads and the riding of hobbies become apparent. The great principle of reflex action, however, remains the basic factor in the physiology of the organism, a sufficient explanation of the action of the great processes which constitute the phenomena of life, that is, active, functioning, physiological life. It is perfectly plain that the organs of this wonderful body structure of ours connected not only with those adjacent and contiguous to themselves, but in direct and intimate communication with all of the organs and tissues of the body, must and do feel some change when the normal physiological equilibrium is disturbed even slightly. It is therefore with some reluctance that I choose a subject for your consideration that is somewhat overdone, a trifle hackneyed, and conveying no new principle. It is quite important to develop additional testimony; no principle suffers from corroborative evidence. It is to diseases of the uterus and ovaries that I would call your attention, and ask for your opinion on a few cases. I will spare the details of long histories, merely repeating the essentials.

CASE I. Mrs. V., æt. forty-two, married, had borne two children and had several miscarriages, examination showed extensive laceration of cervix and perineum. Had been gradually developing some severe nervous outbreaks just before and during the menstrual period. These manifestations took the form of a condition of excitement followed by an epileptiform seizure, the condition gradually deepened until within eight months the seizures came almost every day, the period of excitement being marked by maniacal fury, almost superhuman strength, and strong suicidal and homicidal tendencies. The removal of a right cirrhotic ovary and as then practiced ventro-fixation cured the patient, the menopause came in time, and since the operation about eight years she has enjoyed very good health and no return of the paroxysms.

Case II. Hystero-epilepsy. Young married woman, about twenty-five, had suffered for several years. Examination showed ovaries enlarged and cystic; ovariectomy was performed with entire relief and now, some seven years since the operation, there has been no return of the fits. It might be of interest to note in passing that this lady had felt no

desire for sexual intercourse, nor had she experienced any pleasurable sensation during the embraces of her husband until about four months after the removal of the ovaries. (This same condition was noted in a woman who had been married ten years and had had no interest whatever in the sexual act. She developed a very suspicious condition of the cervix, which with a history of malignant disease in the family justified the removal of the uterus, the ovaries being left. The effect of this operation was to stimulate the sexual appetite very markedly.)

CASE III. At the Metropolitan Hospital, Mary J., æt. thirty-one. Had rather a difficult confinement, was delivered with instruments, sustaining a laceration of the cervix and perineum. When the puerperium had passed it was found that, without any assignable cause, the woman was unable to use her legs. The perineum and cervix were repaired and in time electricity and various other therapeutic measures were used without benefit. When she appeared in my service, aside from the paresis and apparent lack of co-ordination, the only condition that seemed abnormal was completely retroverted uterus. The neurologist of the Hospital was unable to locate any definite lesion in the nervous system. I however, attributed much to the uterus and a ventro-suspension. The result was that within six weeks the woman was walking fairly well and gradually improved, and so far as I know perfectly well now. In the absence of well-defined nerve lesion the suggestion that the idea of an operation might be curative I would call attention to the fact that she had already had one operation without any apparent result.

CASE IV. Miss A., æt. twenty-six, was referred to me for some rectal difficulty accompanied by a pain in the leg. Finding it quite impossible to examine in any way, it was decided to administer an anæsthetic and do whatever operation careful examination seemed to indicate. Examination showed very tight sphincter ani, but otherwise normal rectum. Vaginal examination revealed pedunculated fibroid, about the size of an orange, springing from the right side of the fundus of the uterus. It seemed that the removal of this growth would probably cure the very severe pain in the right leg. This pain

was very severe along the sciatic nerve, the outside of the leg, knee, and ankle. Accordingly laparotomy was done, the fibroid removed by making a V-shaped incision in the uterus and suturing. The patient, who was in very debilitated condition, made very good recovery, but the pain returned worse than ever.

With varying degrees of severity this pain was more or less constant, being greatly aggravated at the beginning of the menstrual cycle about one week before the flow. The appearance of the flow mitigated the pain slightly, but its acme of severity was reached the twenty-four hours succeeding the cessation of the show and then very severe for about four days. Thus for nearly three years this patient suffered more actual pain than I have ever seen endured by a human being. The right leg began to contract on the thigh until the patient was obliged to use a crutch, as she could not get her foot within six inches of the ground. During this period she was seen by many physicians, was carefully prescribed for, was given advantage of all kinds of adjuvants, drugs, electricity, hot-air, massage, hydropathy, etc. One year of this time was spent at Clifton Springs Sanitarium, where everything was done for her comfort and the applications of these adjuvants only found in well-conducted sanatoria. The year spent in sanitarium improved her general health, but two weeks of every month it took larger doses of morphia or heroin daily to keep in any way comfortable.

Finally she came into my hands again for the consideration of further operative interference. I decided to remove the uterus and remaining ovary. When I operated three years before the right ovary was normal in appearance, and with the exception of the pedunculated fibroid the uterus was apparently healthy, but now the remaining ovary was cystic and the uterus showed fibroid disease evidenced by numerous prominences on its surface.

I removed the uterus and remaining ovary by the abdominal route, and the patient made an excellent recovery. Within two weeks there was little or no pain, the amount of morphia was gradually diminished, the patient lending splendid courage, vowing that she would never become a morphine fiend.

By the end of eight weeks no morphia was necessary. It had been thought best to withdraw the drug gradually, so as not to precipitate a reaction at that critical period. The patient now one year after operation pronounced herself cured, the right-leg knee by massage and Swedish movement has become straight and useful. The patient has regained normal weight and walks two miles at a stretch without any inconvenience save normal fatigue, and to-day represents a case of a noble, high-minded young woman, who endured her agonizing suffering with the patience of a Christian martyr. Never in her darkest hours did she lose the faith, notwithstanding the opinions of many physicians eminent in their various departments, who gave little or no hope of recovery. Without burdensome details these cases have been selected at random from my records for your consideration, in the hope they might offer some encouragement to a careful study of that class of cases we see so often and often fail to cure. I am not inclined to the opinion that the ovaries are as frequently at fault as the uterus. For so great is the sympathy between the uterus and ovaries that uterine disease very commonly excites ovarian pain and may give rise to symptoms of ovarian disease.

In case of disease of uterine origin the patient will complain of pain, dull and aching in character, over one or both ovaries and likely augmented by menstruation. The development of ovulation, the continuance of the ovarian function, and the cessation of this physiological process are full of perils. The germinating organism is, however, liable to the ingrafting of pathological processes at any period of its existence but more particularly when ovulation is active. During this active period the uterus through parturient acts, miscarriages, outside infections of various kinds, is so stimulated at times by excessive blood and nerve supply as to become a fertile field for the development of disease, and by its intimate communication with the cerebro-spinal and sympathetic system disturbance of function ensues, and this may be succeeded by nerve storms from localized abnormal sensations to profound mental disturbances. Hobbes (*American Journal of Obstetrics and Gynecology*, 1901) collected forty cases of

insanity which he believed due to diseases of the ovaries. The lesions were principally cysts, simple, multilocular, dermoid, and papillomatous, weighing from a few drams to fifteen pounds, fibroid degenerations, ovarian abscesses, hematomas, inflammatory affections, and prolapsus. The most frequent type was mania, in ninety per cent. of the cases. The attacks either came on or were aggravated just during the onset of menstruation. (I take occasion to call attention that in several cases I have noted aggravation at cessation of flow, probably due to secondary congestion.) The subsequent history of these cases was good; of 12 uncomplicated cases 58 per cent. recovered entirely; of 19, 47 1-2 recovered; others improved, and a few, very few, received no benefit. These results speak for themselves. I have had occasion to speak of cystic ovaries, a condition about which pathologists and gynecologists do not always agree. Tait, Keith, Bland Sutton, Welch, Wylie, and others did not consider a so-called cystic ovary pathological, if it were not larger than a tangerine orange, and with much ardor, and properly perhaps, condemned operations for their removal.

A few years ago Wylie provoked a very spirited discussion on the subject at the Academy of Medicine in New York. Many prominent physicians were present, and the varied opinions expressed served to emphasize the fact strongly that from a consideration of the same or a similar subject men will arrive at different conclusions. My own position in the matter is that each case is a law unto itself and must be carefully studied from all standpoints, and if possible the condition must be accurately diagnosed, then the operative procedure easily suggests itself. Surgery will lose much of its opprobrium when better and more careful methods of diagnosis are employed to arrive at precise conditions. I am convinced that cases of so-called cystic ovaries and when they reach a certain size rupture of themselves, other small follicular cysts probably to go on developing, to be ruptured when a point of maturity is reached. Failing to rupture and the fluid accumulating, a pathological state is developed which in time gives rise to symptoms. We have all seen much trouble and severe constitutional symptoms from

a small submucous fibroid of the uterus not larger than a hickory nut, while one weighing ten to thirteen pounds may be borne for some time without much inconvenience. Just so in displacements of the uterus. Slight deviations from the normal are sometimes productive of much distress in certain individuals, while a displacement of greater degree will go on for years without appreciable discomfort. Cases must be individualized, the general constitutional condition, temperament, and condition of health must be taken into consideration, a careful diagnosis made, and the case treated on its individual merits, the fads, fashion, or hobbies of the time notwithstanding.



ON UTERINE DISPLACEMENTS: THEIR MECHANISM OF CAUSATION AND TREATMENT.

BY THOMAS G. STEVENS, M. D.

In order to have a clear idea of the mechanism of production of displacements of the uterus, it is necessary first to thoroughly realize what the factors are which keep the uterus in its normal position. Here at once we are faced with a difficulty, because authors differ somewhat as to what the normal position of the uterus is. According to the balance of opinion, the uterus lies nearly horizontal when the woman stands upright, and consequently is inclined to the plane of the pelvic brim at an angle of about 60° . In this position the fundus uteri rests on the empty bladder, no intestine intervening. Discrepancies as to the position have arisen, chiefly because writers have not paid sufficient attention to the state of the bladder at the time of examination. When the bladder distends, the uterus is raised up until its long axis either corresponds with the vertical axis of the body of the woman, or even gets beyond that position, so that it inclines backwards towards the sacrum. Also, with a bladder so far distended, the uterus no longer keeps to the middle line, but slips to one side or the other, generally the right. The long axis of the uterus is not straight; the axis of the cervix makes an angle with the axis of the fundus, opening towards the symphysis. The exact size of this angle varies considerably, and will be discussed under the heading of anteflexion.

The factors which keep the uterus in its normal position are :

1. The pelvic floor.
2. The uterine ligaments.
3. The intra-abdominal pressure.
4. The weight, size, and consistence of the uterus.

1. The pelvic floor, or, in other words, the structure which closes the outlet of the bony pelvis and prevents descent of the abdominal viscera, is a most complex structure, and has received much attention from anatomists at all times. Of late

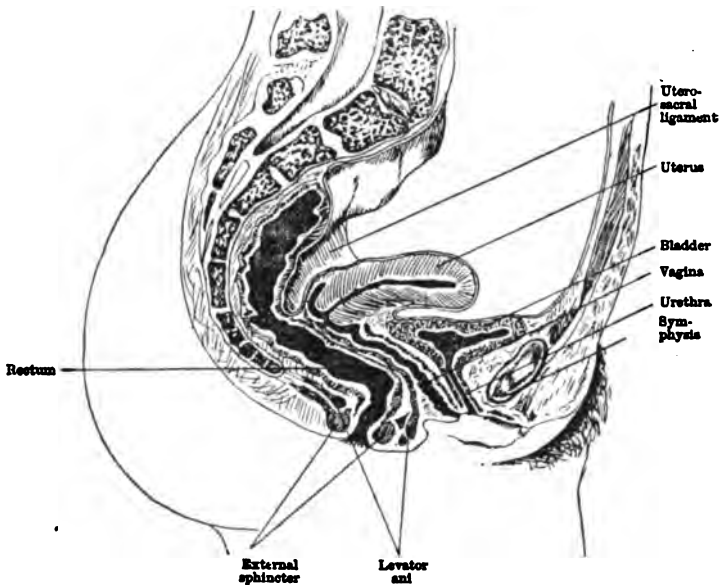


Fig. 1.—Diagram Showing the Normal Pelvic Viscera in Median Section.
(T. G. S., after Dickinson.)

years the work of Hart and Barbour in Scotland, of Braune, Schroeder and Schultze on the Continent, and of Dickinson in America, has done much to render our knowledge of it more perfect. According to Hart the structure of the pelvic floor is briefly as follows: It consists of two portions, the pubic and the sacral. The former consists of the retropubic fat, the bladder, urethra, and connective tissue around them, and the anterior vaginal wall. The latter contains the posterior vaginal wall, the tissues in front of the sacrum, the rectum, the

levator ani on each side, and also its fascia. In addition to this the parts of the pubic segment are attached only by loose connective tissue, and together with the posterior vaginal wall can be displaced downwards, constituting Hart's "entire displaceable portion." It can be seen from Fig. 1. that the displaceable segment rests on the fixed or sacral segment, and so it is the sacral segment which bears the pressure of the abdominal viscera. Now, the antero-posterior curvature of the sacral segment necessary to support this pressure depends on the integrity of the levatores ani, as a glance at Figs. 2 and 3 will show. Thus we arrive at the conclusion that the levatores



Fig. 2.—Female Pelvis Showing Levatores Ani Muscles from Above.
(T. G. S., after Dickinson.)

ani muscles are the most important factors in the structure of the pelvic diaphragm.

2. The ligaments of the uterus are the round, the utero-sacral, the broad and the utero-vesical. Of these the round and the utero-sacral are the most important with regard to the maintenance of the normal uterine position. The broad ligaments serve to convey blood vessels, nerves, and lymphatics, but, being very lax structures, they can do but little beyond limiting somewhat the lateral movements of the uterus. The utero-vesical ligaments are mere folds of peritoneum running from the uterus to the bladder, and can have but little effect in maintaining the position of the uterus. The round ligament, running from the side of the fundus uteri on each side outwards, upwards, and forwards in front of the broad ligament, to be attached by three fasciculi around the external ab-

dominal ring, constantly exerts a pull on the fundus, and helps to keep it anteverted. Retroversion of the uterus makes these ligaments tense, if they are normal in consistence. These, like the utero-sacral ligaments, contain connective tissue and involuntary muscle as well as peritoneal folds. The utero-sacral ligaments attached to the sides of the uterus at the level of the internal os, and running backwards and outwards (upwards in the erect position) to the second piece of the sacrum on either side of the rectum, constantly exert a pull about the

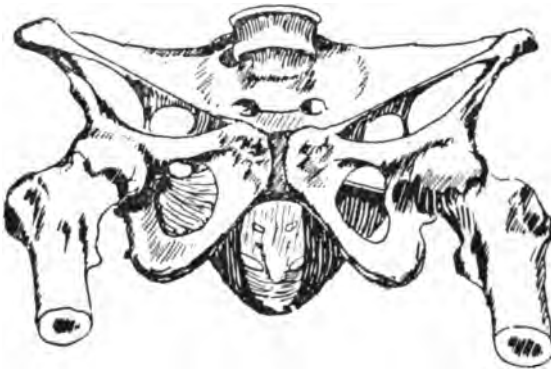


Fig. 3.—Female Pelvis Showing Levatores Ani from Before and Below, (T. G. S., after Dickinson.)

middle of the uterus, and they also help to keep it anteverted. The left utero-sacral ligament is shown in Fig. 1.

3. The intra-abdominal pressure is constantly exerted on the posterior surface of the uterus, and keeps it pressed down on the bladder. This pressure is conveyed through the small intestine, which must constantly lie on the posterior surface of the uterus, and thus we have another factor which keeps the uterus anteverted.

4. The weight, size, and consistence of the uterus only have an influence on the position of the organ when they are abnormal. These factors may be altered in various ways, and as a result may fail in their function of supporting the uterus, and then some slight exciting cause brings about a displacement. The sacral segment of the pelvic floor may be injured by parturition or by an accident. Parturition injures it in two ways—either mechanical tearing of the perineal body,

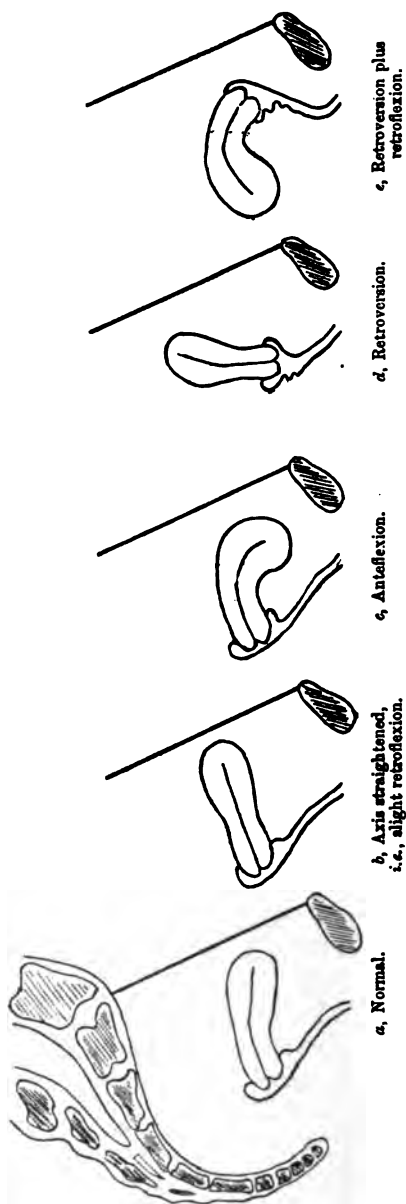


Fig. 4.—Diagrams to Show Uterine Displacements and their Relation to the Pelvic Brim. (T. G. S.)

whereby the parts of the levatores ani attached to the perineal body are allowed to separate from one another, or, by injury from pressure on the pubic nerve or sacral plexus, the levator ani becomes more or less atrophied, and fails in its supporting function.

In either case the result is that the antero-posterior curve of the sacral segment becomes steeper, *i. e.*, straightened out, and allows the pubic segment to descend.

The pelvic floor also may be weakened by wasting diseases, by anæmia and bad feeding in childhood, and when unduly pressed upon, as in carrying heavy weights, soon yields, and allows the pubic segment to descend.

The ligaments of the uterus are softened and stretched by pregnancy, and, if the puerperium is not normal, may share in a general subinvolution, and perhaps never properly regain their natural tone. No doubt, also, in unhealthy conditions of life, associated with bad feeding, a general weakening of connective-tissue structures occurs, perhaps even associated with an actual pathological change, such as fatty degeneration.

The intra-abdominal pressure may be altered in two ways: it may act in a wrong direction, *i. e.*, on the anterior surface of the uterus, when that organ is retroposed during lying-in; or it may be increased by the straining of chronic constipation, chronic cough, or some sudden acute strain, as when performing some unusual effort.

The weight and size of the uterus may be increased by pregnancy, fibro-myoma, subinvolution, chronic metritis, and endometritis.

The consistence may be made more rigid by fibroids, and by a form of chronic metritis; may be made more soft by subinvolution, wasting diseases, bad feeding, and anæmia.

These altered conditions of the uterine supports, abdominal pressure, and uterus itself, must all be looked upon as predisposing causes to displacements in general, and more particularly to backward displacements and prolapsus.

Displacements of the uterus are described under the headings versions, flexions, and prolapsus. By version is meant the rotation of the whole uterus around an imaginary transverse axis. By flexion is meant a change in the angle made

by the axis of the cervix with the axis of the fundus, which will hereafter be called the fundo-cervical angle. By prolapsus is meant a descent of the uterus along with the entire displaceable portion of the pelvic floor.

Fig. 4 shows the usual versions and flexions met with in gynecological practice: *a* is the normal uterine position; *b* shows a straightening of the uterine axis, which, as it does away with the normal fundo-cervical angle, must be regarded as a slight retroflexion; *c* shows the fundo-cervical angle diminished, the fundus bending over forwards, and constituting anteversion; *d* shows the whole uterus rotated backwards without any change in the fundo-cervical angle—this is retroversion: any degree of it, of course, is possible, even to that one in which the cervix looks almost vertically upwards; *e* shows the uterus rotated backwards, with at the same time a bending over backwards of the uterine body, so that the fundo-cervical angle is now open backwards. This is retroversion plus retroflexion, and all degrees of it are possible.

Lateral flexions of the uterus do occur, but they are always the result of cicatricial contraction of peritonitic adhesions or the result of old cellulitic inflammation.

Lateral displacements akin to versions occur, too, and are usually caused by the pressure of extra-uterine tumors.

These two conditions do not call for exhaustive treatment in this paper, because they are only part of extraneous diseases, and not dependent on uterine conditions.

Anteversion is the normal position of the uterus; that is, the uterus is anteverted with regard to the mid-vertical line of the body. There is little doubt that no pathological form of it exists, and there are no particular symptoms referable to an excess of this normal anteverted position.

Anteflexion, again, is a part of the normal character of the uterus; that is, the axis of the fundus normally makes an obtuse angle with the axis of the cervix, the angle being open forwards. Now, it must be supposed that variations in this angle will occur in normal women, but such variations to be natural, must be accompanied by perfectly normal functions of the uterus. As a matter of universal clinical experience, a very large number of the cases of dysmenorrhea of uterine ori-

gin in unmarried girls, and of dysmenorrhea and sterility in married, have an acute anterior bend of the uterus, instead of the normal fundus-cervical angle. Also, examination of those cases does not reveal any pathological cause for such an acute bend, and therefore it is fair to assume that such conditions are congenital. Strictly speaking, then, such conditions ought not to be classed as displacements, but as congenital malformations. The congenital elongation of the cervix, and pinhole os, which often accompany these conditions, help to prove that the whole is a malformation. If this is true, then probably the actual texture, or constituent elements (fibrous tissue, muscle, endometrium), of the uterus are improperly developed, or at least bear abnormal relations to one another. In this supposition lies the explanation of the symptoms dysmenorrhea and sterility. If the endometrium is improperly formed, the usual melting off at a menstrual period does not take place normally, and as a result blood is extravasated into the tissues under pressure, tension, and finally pain, result. Also, with an ill-developed endometrium, probably an ill-formed decidua occurs, and thus no proper provision for a fecundated ovum is made, and therefore no conception results. This suggestion is somewhat borne out by treatment, because complete removal of the endometrium by curettage, followed, it is hoped, by the growth of a more normal lining to the uterus, is the best means of relieving, and perhaps curing, the dysmenorrhea and the sterility. So here, as in most displacements, we see it is not the actual shape of the uterus, but the associated conditions, which cause symptoms. The old idea of obstructive dysmenorrhea must be given up, because the bend is never so acute as to obliterate the cervical canal, and a mere capillary tube is sufficient to let out fluid blood and minute débris, or to let in spermatozoa.

Physiological increase of the normal anterior bend occurs, and the fundus-cervical angle becomes more acute in early pregnancy. In this condition symptoms are complained of referable to the pressure of the enlarged, heavy, anteflexed fundus on the bladder. Especially is this the case at about six weeks to two months' gestation, at a time when Hegar's sign of pregnancy is prominent.

Pathological antelexion is caused by cicatricial contraction of the utero-sacral ligaments due to cellulitis in them, usually following on parturition or some uterine operation. The ligaments draw up the uterus at the level of the internal os, the attachment of the vagina prevents the external os following, and the fundus is pressed down by the intra-abdominal pressure. This has the effect of raising the whole uterus and causing an acute anterior bend. Here also the symptoms are referable to the old cellulitis and accompanying endometritis, and the actual shape of the uterus has nothing to do with them. Such cases must be very rare, because but few are ever seen, even in large out-patient practices. From the above it may be noted that neither relaxed ligaments, pelvic floor injuries, nor changes in abdominal pressure, play any part in the production of these anterior displacements or malformations. They have a pathology of their own, always open a large field for debate, and, unfortunately, do not lend themselves well to treatment.

Turning to backward displacements, we find two categories, those which are congenital and have no symptoms associated with them, and those which are acquired and have symptoms associated with them. A recent paper by Schroeder, in the *Zeitschrift für Geburtshülfe und Gynäkologie*, shows that out of 303 persons with no pelvic symptoms 21.07 per cent. had the uterus displaced backwards. This is no proof that they were congenital, but as the conditions necessary for the causation of acquired displacements were not found, it may be safely assumed that they were congenital conditions. Nevertheless, these congenital cases can and do acquire symptoms, because (1) they may become pregnant and abort, setting up, possibly, subinvolution and endometritis; (2) they may become infected—for instance, by bacteria which get into the uterus from the vagina, setting up endometritis. In either case the symptoms will be the same as those of true acquired backward displacements.

Of the acquired backward displacements retroversion alone is occasionally met with, but retroversion plus retroflexion is the common clinical condition.

Retroversion alone is met with, (1) as a stage in the pro-

duction of retroflexion; (2) as a stage in the production of prolapse; (3) as a physiological condition whenever the bladder is distended.

Retroflexion alone occurs only in one condition clinically, and that is the straightening of the uterine axis which occurs in chronic metritis. In these cases the normal anterior fundocervical angle disappears, the uterus is hard and tender, but keeps its normal anteverted position.

Retroversion plus retroflexion is by far the commonest displacement of the uterus, and is generally caused by parturition or abortion. The mechanism of production is as follows: Owing to the dorsal position commonly assumed by women after parturition, the large heavy uterus falls back against the sacrum, and very readily, by a straining effort, allows intestine to be forced down in front of it. Involution at first goes on naturally, but if the intestine remains between the uterus and the bladder, when the patient gets up, it is a mere accident whether the uterus is jerked forward into its normal position or is forced backwards by the abdominal pressure acting on the anterior surface of it. This altered position of the uterus naturally produces a doubling over of the broad ligaments, so that the inferior surface now looks upwards. The effect of this is to interfere with venous return, and so the involution of the uterus is delayed. If untreated, this condition readily becomes a chronic retroverted and retroflexed uterus, and in time will have all the symptoms referable to hyperplasia and chronic endometritis. It is a somewhat debatable point whether an unmarried woman, apart from parturition, can acquire a retroversion plus retroflexion.

There is no doubt that virgins do have retroverted and flexed uteri with symptoms, and in many cases these may be symptoms superadded to a congenital retroflexion, as mentioned above. But it is quite possible to conceive that a virgin could acquire a retroverted and flexed uterus under such a combination of circumstances as follows: First, it is common among unmarried women to habitually allow the bladder to overdistend, and so to retrovert the uterus. Next, habitual constipation is common among women at all times, and straining at stool might easily force a piece of intestine between the

uterus and bladder. Lastly, if the subject happens to be in ill-health, badly fed, and overworked, all her tissues will be flabby and relaxed, and the result of the abdominal pressure being transmitted to the anterior surface of the uterus will be the same as if it happened in a woman just after parturition, and chronic retroversion and flexion will occur.

The possibility of retroversion and flexion occurring in an otherwise healthy person as a result of a fall, a blow, or a sudden jar, has been often discussed, but there is no real evidence that such a thing can or ever does occur. A suddenly produced prolapse of the uterus is quite another matter, and does occur not infrequently.

If a retroflexed and retroverted uterus becomes fixed by adhesions in its abnormal position, it means that peritonitis has been set up, usually by infection traveling from the endometrium along the fallopian tubes. Clinical experience goes to show, at all events in this country, that these cases are much rarer than writers would lead us to believe.

Occasionally, no doubt, a retroversion and flexion is actually caused by the contraction of peritonitic adhesions; but such cases must be even rarer than those just mentioned, and their symptoms are due to the peritonitis, not in any way to the displacement.

Prolapse of the uterus must not be looked upon as a displacement of the uterus *per se*, but must be regarded as a part of a total displacement of the pubic segment of the pelvic floor. Practically the uterus has nothing to do with the causation of the complex condition known as "prolapse." The uterus descends, and may even get outside the pelvic cavity, only because it is an integral part of the pubic segment of the pelvic floor. The whole condition is a true hernia, and must be described as such. It is a hernia, first, because it protrudes through a definite opening, namely, that bounded behind by the lower end of the sacrum, in front by the symphysis pubis, and at the sides by the levatores ani. Secondly, it has a definite peritoneal sac. Thirdly, it has definite coverings, namely, the structures forming the displaceable portion of the pelvic floor, of which the uterus is only a unit. Fourthly, it has definite contents, namely, small intestine, as a rule. The only point

in which it differs from other hernia is the diversity of the structures forming its coverings, and the peculiar relation which the uterus bears to these structures, closing in, as it were, the slit-like opening between the vaginal walls.

The mechanism of production of a hernia of the pelvic floor may be either sudden or slow. The former is the least common by far. Sudden prolapse occurs chiefly in young subjects, and more particularly in virgins. The subjects are generally anæmic, have flabby tissues, and may be fat; all are hard workers, and usually work in unsanitary surroundings, and may be badly fed. In other words, these subjects have just the tissues which favor the production of hernia in general, and prolapse in particular. The flabby fat condition leads to relaxation of all muscular and connective-tissue structures, including the pelvic floor and the uterine ligaments. Under some sudden strain these all give way, and complete prolapse results, or, in other words, the pubic portion of the pelvic floor is forced through the sacro-pubic opening. In slowly produced prolapse, on the other hand, the analogy with hernia is apt to be overlooked, owing to the peculiar effects produced on the uterus itself. The subjects are generally married, and have had children. They may have had injuries to the sacral segment of the pelvic floor, or subinvolution leading to relaxed uterine ligaments. In many there may be chronic cough, or constipation leading to straining, and so to an increase of the intra-abdominal pressure. The size of the uterus has nothing to do with the production; indeed, the larger the uterus the less likely it is to prolapse, because the larger the mass which has to be forced through the sacro-pubic opening, the more difficult must it become. All prolapsed uteri are large, but they become large on account of the chronic congestion in them caused by stretching of the broad ligaments and interference with the circulation. They do not prolapse because they are large, but they enlarge because they are prolapsed.

The sequence of events in the production of a slowly-formed prolapse is as follows: The first part to come down may be either the anterior vaginal wall, constituting cystocele, the posterior vaginal wall, rectocele, or both together. Chronic constipation, with straining, generally is the precursor of recto-

cele. In either case, the vaginal wall, being forced outwards, drags on the cervix, and first retroverts the uterus. With further dragging the uterus itself next begins to descend. Finally, the uterus is pressed downwards against the sacral segment of the pelvic floor by the abdominal pressure, and as the uterus descends further it distends the anal outlet (as a fetal head does), and first the cervix appears outside the vulva, then the fundus pushing the posterior vaginal wall before it. While this is occurring, the venous return is interfered with, and the uterus becomes congested. This congestion leads to hyperplasia, which in connection with the dragging of the vaginal walls produces elongation of the supravaginal cervix. If the uterine ligaments are normal, but the pelvic floor is injured, the drag of a cystocele or rectocele may produce this elongation of the supra-vaginal cervix, without any real descent of the fundus.



RUPTURE OF THE FALLOPIAN TUBE AND ARTERY AT FULL TERM AND IMMEDIATELY PRECEDING LABOR.*

BY F. P. WARNER, M. D.

Spontaneous rupture of the ovarian tube and artery is of rare occurrence, and medical works seldom speak of the accident. Nevertheless, having had two cases of such during the past four years, the subject is of enough importance to merit a passing notice.

The ætiology of this condition in the two above-named cases being so widely different, there can be no definite cause named unless it be a relaxed or brittle condition of the tube and artery. One case occurred in a young woman of twenty-three years of a relaxed and phlegmatic temperament, in the non-pregnant state, and the other of which I shall speak was of a nervous temperament and of small stature, but of great endurance. The latter suffered from a varicose condition of veins of the legs and the rupture occurred at the second labor in a woman of thirty-five years. The exciting cause of the former case was from a sudden fright. In the latter case it

* Read at N. Y. State Medical Society.

came on suddenly while the woman was sitting in a chair at the dinner table. She was at full term and labor was expected to come on at any time. The history of the case will give an idea of the condition. On July 22 I was called to see the patient, who was said to be suffering from an attack of cholera morbus. I found her lying on the floor and suffering from intermittent pains in the abdomen. She had vomited a good deal. She was pulseless at the wrists, and was covered with a cold, clammy sweat and all the extremities icy cold. Her countenance was pinched and collapsed, and the patient was suffering from all the symptoms of a profound shock. Stimulants and heart tonics were given vigorously and persistently for several hours before any signs of a reaction came on. The patient was first seen at 5 o'clock, P. M. The reaction began to come on about midnight, when a slight bloody discharge from the vagina began to come on. This increased with such persistency that placenta previa was suspected, and an examination was made expecting to find such a condition. The os was open to about the size of a little finger, so a diagnosis of placenta prævia was eliminated, as the child was lying in the uterus in the normal position and placenta not advancing. The patient kept on flowing gradually for a couple of hours longer, and symptoms from loss of blood becoming more and more threatening, delivery was considered advisable. The os was dilated by means of finger and dilating instruments slipped on and delivery accomplished at once. When the fetus was taken away the hemorrhage became more profuse, the blood spurting off from the bed on the floor in considerable quantities. The hand was then introduced in utero and placenta removed without any difficulty. Still the flowing did not cease. Remedies as best indicated were prescribed internally and ergotole and atropine injected beneath the skin, and uterus forced to contract from the pressure without. While the uterus seemed to be firmly contracted yet the hemorrhage kept on throughout the night and patient died at 4 o'clock, A. M., ex-sanguinated. Post-mortem revealed the left ovarian tube ruptured between the ovary and uterus about one-fourth distance from uterus and quantities of clotted blood in abdominal cavity. This blood in abdominal cavity ac-

counted for the intense shock. This rupture of tube must in turn set up the hemorrhage from uterus. From the foregoing history we can give the symptoms of rupture of ovarian tube at full term of pregnancy as having all the symptoms of shock. Coldness of whole body, the flesh all over felt icy cold, pulseless at wrist, body covered with cold, clammy sweat, vomiting, pain in abdomen, located at the right or left of median line, soon followed by slight hemorrhage which increased in intensity. The persistency of the shock symptoms, and the slow reaction after the use of all known heart remedies, will help to make the diagnosis of this serious condition. Having made the diagnosis, what is to be done? In giving the history of the case above, the treatment is outlined in full as to this particular case. These symptoms all being so violent, and one thing after another coming on so rapidly and not having the experience of others, the case was given up, feeling that all had been done that was possible. Were we to meet another such case the following course would be taken: Ergotole and atropine would be given subcutaneously to check the hemorrhage and to bring on reaction. Camphor, verat. alb., camphorated oil, and stimulants for mouth, and salt solution per rectum. As soon as sufficient reaction was established to permit of an anæsthetic, ether would be administered and the abdomen opened and tube tied off and removed with ovary, and delivery accomplished either by Cæsarean section or the natural outlet. The percentage of recoveries might not be large, as we have a serious condition to meet, which requires prompt and efficient treatment.



A FEW THOUGHTS ON BELLADONNA AND SCARLET FEVER.

BY C. J. LOISEAUX, M. D.

All are aware that we are in danger oftentimes of falling into routine prescribing, to our resultant sorrow and discomfiture.

During the spring of 1901 we had a great many cases of scarlet fever in my city and adjoining country. It was not markedly severe; but was that red, smooth variety, with con-

siderable throat complication. For many weeks case after case would fall into my hands, and so general was the rapid and complete recovery under belladonna 6x, that many adherents of the dominant school would call at my office and ask for that scarlet fever remedy I was giving neighbor so and so. I would give belladonna 6x, giving proper instructions as to the care of the patients, to look out for the kidneys, etc., with the uniform result that they all recovered in a remarkably short time, and my fame extended a long way into the country as "the doctor who knows how to cure scarlet fever."

Whilst it is true that belladonna will cure nearly every case in certain epidemics, it is also true that it will fail. I was not long in finding that out, as sometime in the latter part of May, 1901, one of our well-to-do farmers drove up and said they had scarlet fever at their house, some ten miles out. They had had a doctor from a nearby town, who came twice daily to see the only child that was sick there. He was a bright and clever fellow of the dominant school, but somehow did not seem to get along with the case to suit the parents, so they came and asked me to send some of my remarkable remedy, with the parting words, "Will you come, doctor, if we send for you?" Twenty-four hours passed, and no word from them. "Well," said I to myself, "belladonna has again hit the case," but I was not long to rejoice. Twelve hours later, a telephone message said, "Come as soon as possible." On arriving, I found case No. 1 had nearly recovered and was doing nicely; but an older sister, nine years of age, was very sick, with high fever, sore throat, etc. etc. As all the indications pointed to belladonna, I gave it; found her better next day, but another sister, five years of age, had been taken sick meanwhile, though I had given her and a baby brother belladonna as a prophylactic. She got very sick under belladonna until the condition changed, and rhus tox. and apis mell. were given as the indication seemed to show. The nine-year-old seemed to do nicely on belladonna, but this one got worse on my hands. I took my friend Dr. Linn out with me, and we concluded that I had better stay there that night, as the case was critical, and the kidneys were not acting well. The fever at 6 P. M. was 105 2-10; at 7, 107; at 8, 107 8-10; at 9, 109; at

10, 109 1-2. That was the last test, as the little sufferer passed quietly to her eternal rest at 11.10 P. M. Had I not taken the temperature myself with a good instrument, I would not have believed that such heat could be reached.

The nine-year-old, during the funeral of her sister, took a relapse. With the advice of the grandparents, a change of doctors was made, but with the promise that I should return if called. That was Friday morning. On Sunday morning following I was called to come at once and bring another doctor with me. My colleague, Dr. Holloway, accompanied me. We got there about 9 A. M. Found that not a drop of urine had been voided for thirty-six hours, and the case did not look inviting nor promising. After due deliberation, we prescribed digitalis. She was then taking seven different kinds of drugs. Dr. Holloway gave me the good advice to stay with the patient, though we had a good homeopathic nurse, who followed our directions well, with applications of warm water to the kidneys and over the bladder, and the remedy given often. At 1 P. M., or four hours after we again took the case, we were rewarded with a dram of urine, that the seven drugs had failed to do in thirty-six hours. At 4 P. M. we again obtained an ounce, and from that on the case made an uneventful recovery. The baby, a year old, entirely escaped.

Someone has said that "we learn more by our failures than by our successes." I have learned never to call a case of scarlet fever not dangerous, but always warn the parents of the danger of complications, especially of the kidneys. I have learned to seldom send medicine without seeing the patient, if I am morally certain that it is scarlet fever or even scarlatina. I have learned that belladonna will not cure every case of scarlet fever, even when it seems to be the indicated remedy; in that case, I have learned to change the potency, often with marked results, and the 6x has perhaps given me the most satisfaction in my practice, though I have used it and may again, from the 2x to the 500th potency. I always give belladonna to the other children, should there be any in the family, with good results, generally making the disease of a light form, and many entirely escaping it. That belladonna will cure and prevent scarlet fever more than any drug known, there is no

doubt in my mind, especially if we could always tell how sensitive our patient is to the drug, so we could give the right potency. I have no doubt we would make scarlet fever mortality very low, and the sequelæ comparatively *nil*.

As this paper is for the Bureau of Clinical Medicine, and on scarlet fever, it would be out of place and tiresome to the Association for me to expand upon the virtues of belladonna as used by the true homeopath. But I will say, use it in scarlet fever, not too low, especially in children, and more especially in those blonde blue-eyed youngsters, who are as a rule very sensitive to the effect of the drug.



CONGENITAL MEASLES.

BY L. SAMMONS, M. D.

Believing that unusual cases may be of interest to the profession and having had one quite recently, I offer it for consideration. This case is mainly interesting from the fact that it is contrary to the opinions of nearly all authorities. Mrs. O., aged twenty-eight, nativity, U. S., expected confinement May 20, 1902; third pregnancy; previous labors uneventful. Was called about 3 P. M. on April 25; found patient, and also her two children, broken out with measles. At this time she was complaining of pains and considerable bearing down in pelvic region and excruciating pains in back. Examination revealed partially dilated os.

Left remedies to allay pains and ordered perfect quiet.

Was called again at 8 P. M., and delivered her of twin boys, using chloroform and instruments to deliver the second.

In less than thirty minutes after they were born the measles eruption was plainly discernible on each child. The disease ran its typical course on all three, with an uneventful recovery.

Since then I have consulted a number of authorities on the subject, find that a few cases, not more than six, of congenital measles have been put on record from time to time, but none of them claim to have observed a single case except Dr. Windsor, who reports a case in the Medical Council. In his case the baby developed the eruptions two days after birth and died on the second day of the disease.

Both of the babies in the case I report are living and well, at almost four months of age.

The treatment I gave them was to have them wrapped in cotton batting and internally the homeopathic remedy.



PUERPERAL SEPSIS—A DISCUSSION.

BY HENRY E. SPALDING, M. D.

Obstetricians can rejoice that persistent discussion and investigation of diseases of parturition have conclusively proven to the world that they are mainly dependent upon infection, from one source or another, and are ordinarily preventable. As a result, we can assume our duties in the parturient chamber with reasonable assurance that we will not be called upon to battle a systemic poisoning, formerly called "child-bed fever,"—a disease terrible in fatality.

The sword has had its victims by thousands; puerperal sepsis its tens of thousands. To-day asepsis and antiseptics are proving a shield of defense, so that we can meet the first onset of malignancy with a good degree of assurance.

As to the source of infection, I believe that cases of auto-infection are more numerous than is generally supposed. In a paper on this subject, read before this society three years ago, I expressed these views, and have found no reason for changing them. At the same time I almost fear to emphasize this fact, lest some may thereby become less strict in observing antiseptic precautions, and use this as a cloak to protect from criticism and smother conscience. The demand is first and all times for absolute surgical cleanliness of patient and accoucheur.

I wish to say a few words concerning the doors by which the various disease germs gain an entrance. By most observers the endometrium is looked upon as a frequent site of entrance. This I decidedly question. The endometrium is at this time most active in the performance of its excretory functions in throwing off large quantities of matter, the products of disintegration of tissue. We can hardly ascribe to it double

and opposite functions of absorption and exertion at one and the same time. Moreover, the morbid lochia have been proven to be not only aseptic, but in some degree antiseptic.

Truly, with endometritis we may find in the uterine cavity retained debris of decomposing clots, or of the secundines. They have served as culture material for malignant germs, which with their poisonous products escaping from the uterus, came in contact with some lesion in the cervix, the vaginal canal, or the vulva, and there gained an entrance to the circulation. These germs, streptococci, staphylococci, whatever they may be, now seek the most inviting field for development. No other organ in the body presents this as does the disintegrating mass of tissue, the body of the uterus. The conditions here are all in their favor. Phagocytic opposition is practically *nil*. They establish themselves there, and soon the endometrium in its effort to throw out these poisons, with other matter, becomes infected, and we have fully developed endometritis. I shall refer to this again in speaking of treatment.

In all cases the utmost vigilance should be exercised to discover the very earliest indications of septic infection. During my service in the maternity of the Massachusetts Homeopathic Hospital and in private practice, it is my custom to note as slight an elevation of temperature as 100 degrees, and seek the cause. Some disturbing psychic influence; engorgement of one or more lacteal glands, with occlusion of their ducts; a disturbed night's sleep; inaction of the kidneys; a distended bladder; most frequently of all, an accumulation of feces in the intestinal canal—these are among the various causes of simple pyrexia, and are readily removed. If, however, none of these causes are discoverable, the safety of our patient demands that we assume that septic infection is present, although the lochia show nothing abnormal and there are no local signs of infection in the uterus, or its adnexa, or in any other organs of the body; our treatment should be immediate and active for checking the further development of the disease.

I have said that retained fecal matter is a most frequent cause of pyrexia. This doubtless led to the old routine practice of giving a cathartic on the second or third day after de-

livery. Severe labors are often followed by an inertia or semi-paralysis of the intestine. In normal labors this is present in some degree. In this condition, with elevation of temperature, measures should be taken to promptly and thoroughly evacuate the bowels. This can usually be done by a copious high enema. The ordinary rectal enema is seldom effectual in giving full relief. If palpation still shows retained fecal accumulation, a saline cathartic should be given.

The only modification of the treatment advocated in the paper read is such as is consistent with my belief already spoken of, that endometritis is not the initial disease, but is the result of morbid poison admitted through some lesion of the parturient canal. With this theory in mind, I have of late hesitated to use the curette in the earliest stages of sepsis, lest I unwittingly cause an abrasion of surface, which is always to be avoided, and thus provide another door of entrance for septic germs.

With the first appearance of fever, which I have decided by exclusion to be septic, I order a hot antiseptic vaginal douche. The antiseptic used may be one of a score. I now use one per cent. formaline. In introducing the douche pipe, care must be taken not to carry germs with it, by first cleansing the vulva and os vaginæ, and then introducing the tube slowly, the water flowing all the time. The douche should be copious, the flow continuing for twenty minutes or more. Should the septic material be in the vagina or cervix, two or three douches, at intervals of four to six hours, will ordinarily lower the temperature, understanding always that indicated remedies have been given meantime.

If there is no relief, or if the temperature continues to climb, the uterine cavity should at once be explored to discover any retained septic matter. I here avoid the sharp curette, preferring the fingers or semi-dull curette to dislodge any adherent placental tissue and an antiseptic douche to wash away the débris. The best curette I have ever used for this purpose was devised by a member of this Institute, Dr. Hanchett of Sioux City. Six wires about 1 1-2 inches long are soldered to a long metallic handle. One half of their distal ends are corrugated laterally. The ends are then brought together,

giving a shape quite like a balloon. With this it is impossible to wound the endometrium, yet it readily enters the cornuæ and brings away any matter clinging to the uterine walls. Having thus cleared the uterine cavity of septic matter, I wipe the cavity dry with sterile gauze and pack with iodoform, or borated gauze, as I think the individual case demands. I either lightly pack the vagina with the same, or leaving it empty, douche as before described every four to twelve hours. The packing may remain in the uterus forty-eight hours, when it should be removed or not, according to the exigencies of the case. Usually one packing is sufficient. This treatment, you will bear in mind, is for cases that are under close watch, and hence are taken at the very onset of the trouble. In neglected cases, where endometritis has become fully established, and perhaps the endometrium is a mass of slimy, sloughing tissue, the sharp curette may be demanded. Here, however, its use is being questioned by some of our best authorities. At all events, great caution should be used not to go too deeply into the uterine walls. Irrigation of the uterine cavity has given good results, and in extreme cases may be better than packing. The serum treatment has been tried and failed. Vaginal hysterectomy does not appeal to me. When the case is so advanced as to call for such heroic treatment, there is general systemic poisoning that this cannot reach. With these and Prior's method of treatment I have had no personal experience. The fact is, since I have adopted the very early treatment detailed above, I have had, in private or hospital practice, no cases reach a point that gave me special anxiety or that called for extreme measures. It may have been, however, a coincidence of good fortune.

Our essayist speaks of the use of quinine in cases of doubtful diagnosis as a means of clearing up all doubt, but does not explain in what way it does this. Does he, after "old school" custom, use it as a specific for the disease? I must confess that with arsenicum, gelsemium, lachesis and other remedies in our materia medica, I have never seen occasion for its use.

PHOTOTHERAPEUTICS AS A NEW THERAPEUTICAL AGENT IN OBSTETRICS AND THE DISEASES OF WOMEN.

BY PROFESSOR CURATULO, M. D.

The careful study of the results obtained by the use of phototherapeutics in general medicine has led me to consider the possible application of that form of therapeutics to obstetrical and gynecological treatment.

The dilatation of capillaries, the direct stimulation of the cells, the reflex excitement produced in the vasomotor nerves by the application of light baths are results that will certainly benefit some forms of female diseases.

We must not only consider the metabolic effect on the tissues, but also the germicide power. Koch and Pettenkower have shown the germicide action of sunlight, and Arloing, Arsonval and Cherrin have found the same effects with incandescent electric light. Moreover, a light bath is also a hot-air bath, and thus also may be useful to the gynecologist.

I will show you a form of speculum that I have invented to facilitate the application of phototherapeutics to the uterus and vagina, and enumerate the cases in which I have found this treatment beneficial and those cases in which I consider it may give good results. In a future paper a description of the clinical researches that are in course will be given. We will briefly consider incandescent electric light and light baths, in order to show the physical laws that have determined the construction of my speculum, and thus we shall be able to distinguish between the results obtained by true phototherapeutics and the results obtained by the so-called light baths in common use in which, as Finsen has pointed out, the effects are to be attributed solely to hot air.

Incandescent electric light is composed of different kinds of rays, that is, calorific rays, and chemical or actinic rays, corresponding to the infra-red, the visible, and the ultra-violet divisions of the spectrum. The usual form of light baths makes use of the three above-mentioned kinds of rays, but we

must remember that each kind has its own special physiological action.

The infra-red, the red, and the yellow rays are principally calorific rays; the blue, the violet, and the ultra-violet constitute the chemical rays. The latter are the rays that Finsen has found so beneficial in the treatment of lupus, and they stimulate tissues when applied in moderation. Others have also considered these rays of special value in the treatment of anæmia and chlorosis, and Finsen has shown the favorable effect of the red rays on the course of measles, smallpox and erysipelas.

For therapeutic use we can take the incandescent electric light, divide it into its constituent parts, and make use of that variety of rays that will be most beneficial to the case in hand.

My speculum will allow us to isolate the three kinds of rays and apply them separately, or, should it be desired, we can apply the three united. Moreover, I have intended a further modification of the same instrument, whereby incandescent electric light may be applied contemporaneously with a medicated douche of natural, artificial, or mineral water.

Description of the Speculum.—Fig. 1 shows a horizontal section of the instrument, composed of a double tube (a and b) of isometric glass, a little longer than one of the usual Fergusson speculums. The uterine end of the instrument is terminated by a cup-shaped inclined depression sufficiently large to receive the cervix. This extremity is also double, being a continuation of the two tubes a and b. Two tubes r and s communicate with the space x left between the two walls a and b that constitute the speculum. A piece of india-rubber tubing unites the tube r to a large douche filled with cold water, which flowing freely in all the space x cools the sides of the instrument and permits the use of a high-power incandescent lamp. The water escapes from the tube s, and is received in a basin placed under the gynecological chair. The vulvar extremity of the speculum is closed by an india-rubber cork f, pierced by two holes, through one of which a tube d allows the passage of the wires that supply the electric incandescent lamp l. Through other hole a cylindrical ther-

mometer is introduced in such a way that the temperature of the space *w* may be easily read. The tube *d* can be easily moved in the cork *f* so as to bring the lamp more or less near to the cervix.

Application of the Speculum.—Before introducing the instrument, the cork *f* must be removed, and the operator must

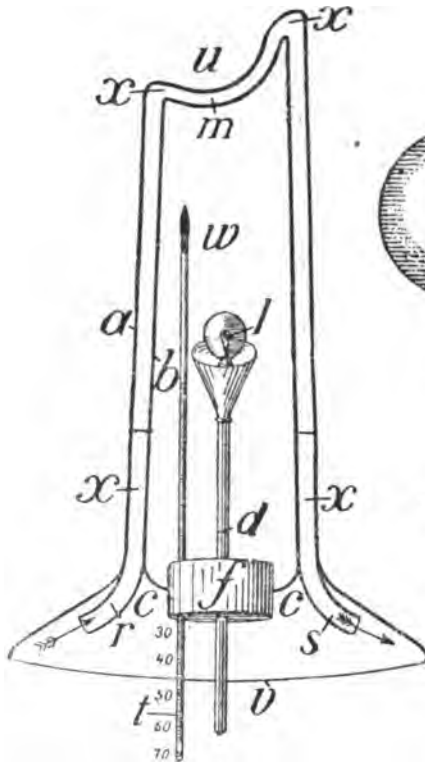


Fig. 1.

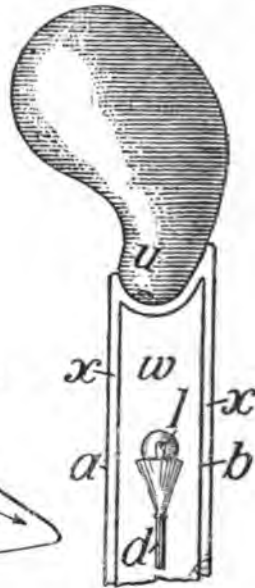


Fig. 2.

ascertain that the uterine extremity is rightly applied to the cervix. Blood prevents the passage of chemical rays and thus diminishes their action on tissues, so that we must first render the part anæmic. By means of my instrument this result can be obtained by the application of moderate pressure. When the uterine extremity of the speculum is pressed against the cervix we obtain the necessary state of anæmia.

If it is desired to apply the three kinds of rays of which light is composed, then an incandescent lamp of great intensity and therefore also of great calorific power may be used, since the current of water circulating between the tubes a and b will protect the vagina from the heat produced. If a lamp of less power be used, it will not be necessary for water to circulate in the instrument, but it will be sufficient to fill the space x with a solution of alum, closing one of the orifices of the tubes r and s, so that, in case the solution should be overheated, it may escape by the remaining orifice, and thus prevent a possible rupture of the instrument.

A solution of alum, as is known, has the power of absorbing the calorific rays of light. If the space x be filled with ammonio-cupric solution the chemical rays alone will pass; if it be instead filled with a red solution, such as cochineal, then those rays will be absorbed and we shall have the action of the luminous and calorific rays.

I have further designed a modification of this speculum in which the external tube a is perforated with numerous minute apertures for the upper two-thirds of its length, thus permitting the simultaneous use of a douche and light bath. The speculum is constructed with isometrope crystal, this variety of crystal allowing the light-rays to pass completely. Fig. 2 shows the speculum applied to the cervix.

It is my belief that phototherapeutics will be found useful in obstetrical and gynecological treatment. In some cases it may replace the vaginal douche and act as a hot-air douche; in other cases, as before stated, it may be applied at the same time.

By moderate application of chemical rays we may obtain important modification of nutrition in cases of metritis or hypertrophy of the cervix. This increased nutrition I have found useful in cases in which the uterus and the cervix are not well developed, a frequent cause of sterility; and it also tends to facilitate the absorption of the exudations in cases of perimetritis and parametritis, a very frequent cause of uterine displacements. The stimulating effect of the vaginal light bath is also useful in cases of uterine inertia, and possibly it

might be employed to induce premature confinement or obstetric abortion.

The number of applications necessary before seeing amelioration of a case in hand, of course depends on the nature of the case; in some pelvic exudations I have observed good results after fifty applications of hystero-photo-therapeutics, the application performed every other day. In other cases a short number of applications are necessary. Very little result is to be expected in cases of endometritis, but good effects are obtained in cases of metritis of the cervix.



OBSTETRICAL EXPERIENCES.*

BY A. DAVIDSON, M. D.

Since I entered practice some 2000 cases of childbirth have passed under my observation and of these about 1500 have been under my own care. In my first year's practice in a congested mining district I added to the ordinary visitations, which varied according to the seasons from thirty to one hundred visits a day, the pleasure of two or three labor cases a week. Like all youths, I was enthusiastic, and delighted with the work. The first few labor cases gave one that feeling of elation that you experience after your first laparotomy. You feel you have done some tangible thing, and you have the baby and sometimes a torn perineum to show for it. By the end of that first year that feeling wore off, not from lack of novelty, but from the plenitude thereof, and in lieu of this came a feeling of responsibility, sometimes even temerity, and always profound thankfulness that there was another woman safely through one of the trials of her life.

The more I see of obstetrics the more I feel assured that no monetary reward compensates the attendant doctor for the responsibility he assumes in taking care of these cases, and though I have been fortunate in having lost but one mother in my experience, yet I never see a case safely through without a sigh of relief.

Our text-books tell us that the average relative positions in

* Southern California Medical Society.

labor, in the first, second, third, and fourth are 67, 10, 20, 3, (Leishman.) In my first 300 cases I made careful records of my diagnosis, but my figures are 84.5, 8.6, 2.1, 4.5, and my experience suggests that in my district at least the number in the fourth position is understated. Of course much can be explained by my inexperience at that time. Of those in the third position, 80 per cent. rotated naturally and without assistance to normal, and of those in the fourth only 60 per cent., and this is probably about the average for us all.

There is nothing more discouraging to the doctor, and more tedious and painful to the mother, than this waiting for nature to rotate the fetus to the easiest line of travel, and I have long since ceased trusting to nature to do it. Civilization has traveled faster than natural evolution, and it is our duty to recognize the fact. Whenever the position is No. 3 or 4, if unable to rotate the child by bimanual manipulation, I apply forceps, turn the head, and when it is safely entered in the pelvis, detach forceps and then leave it to nature. These cases that are occipito-posterior are, strange to say, mostly female children, at least they are 25 per cent. more frequent among females.

As to the use and abuse of the forceps, much has been written, and I do not intend to enter into the merits or demerits of the controversy. I began life as the assistant of a man who practically never used the forceps, at least in not more than 1 or 2 per cent. of his cases. Only twice in my first 115 cases was it used, once low down, for inertia, and once high up, obstruction at the brim. In those 115 cases I had four dead children in normal cephalic presentations, that is more than I have seen in all the cases I have attended since. They died from pressure in the unnaturally delayed second stage. Since then I have acted in each instance as I have judged best. I have no rule about when to apply forceps, each case must be judged solely on its merits, and when I think a woman has had a fair chance to deliver herself and failed, I let nature have second place. If statistics prove anything, they must show that so far as maternal and fetal mortality is concerned the judicious use of the forceps has never cost me a single life—nature has.

My forceps cases all over average 16 to 17 per cent. I have not invented a forceps of my own. I have not felt equal to improving on Barnes. Having babies is not—in the technical sense—a disease; it is not even what they would call a habit in Texas, and the recognition of this has prompted many men to trust too much to nature in parturition.

The obstetric faddists, and they are numerous, still attempt to follow out the complete antiseptic routine during labor. Many of you have seen ardent disciples of Lister using the carbolic spray under a tent of bed clothes during the whole period of labor. The spray gave place to the antiseptic douche, and some of the narrow-minded members of our profession use it even yet, both before and after labor. By way of supplementary caution they carefully shave the external parts and scrub with soap and antiseptics till the woman is scrupulously clean and quite uncomfortable. Then having shaved himself, and sterilized his hands, the humble attendant leaves the case to nature and retires to bed, after enjoining the nurse to call him when the child appears. If nature is capable of taking charge of the labor, she, I think, may also be trusted with the preparatory work too.

So close do some attempt to follow nature in obstetric matters that I expect to hear any day that some enthusiast has taken to cutting the cord with his teeth and served the placenta as a restorative to the mother. That is nature, gentlemen, all animals do it, and man presumably did likewise for many ages. Even to this day the habit of placentophagy still survives among some tribes in this country. Brazil, Asiatic Russia, and the Soudan. This, to us, repugnant habit, is found on a much more scientific basis than the shaving of the pubes, as it has the power of inducing uterine contractions and stimulating the mammary secretions.

I had my faith in douches shaken at a very early age. In my student days the women of the slums, on whom we practiced, had not only no means of taking a bath, but frequently had nothing but a pallet of straw, with a few second-hand rags for a covering. Yet they seemed to make as perfect a recovery as their wealthier neighbors. I abandoned douches as a routine after the first year in practice. Since then I have at-

tended women of varied nationalities, including negroes, Indians, Mexicans, and so far I have seen no reason to interfere with nature's preparation for the parturient woman.

When I was in the territory I had on an average two cases a week among the Mexicans and Indians, some of them complicated, for usually they dispensed with the doctor's service. Now, they are not a cleanly race. The usual procedure at a labor is as follows: The bed, which consists of a quilt and canvas, is rolled out on the adobe floor. A clean sheet is laid over this, a deerskin or goatskin, which has served for a mat for lo, these many years, is plucked from its adobe bed and laid upon the sheet and the bed is ready. If the labor is tedious and the night cold, one of the dogs, usually a hairless Chihuahua, is coiled over the uterus to act as a comforter. After the labor is over there is frequently not a rag in the house available as a napkin, so we let that formality go, and as the only towel in the house is usually around the woman's head, we dry our hands on our own pocket handkerchiefs. We leave the woman to nature. Yet, these women make as rapid recoveries as any and I do not recall a single case (and many of them were difficult labors) where a woman was compelled to remain more than ten days in bed on account of slight febrile disturbance.

The Mexicans are mortally afraid of cold water in any sickness and for forty days after labor they will not bathe. So the germs are allowed to fight it out among themselves and the woman escapes in the conflict.

If the records of our lying-in institutions prove anything, they prove that in all probability practically all cases of puerperal sepsis are due to infection from external sources. The attendant wittingly or unwittingly is probably always to blame. This is a hard proposition to indorse when a case arises in one's own hands, but I think its truth must nowadays be admitted.

The prevention of sepsis comes down then to the proposition of clean hands and instruments. With instruments this is easy, but with the hands very difficult. I had a friend have half a dozen cases of sepsis in succession. He bathed in carbolic, washed and scrubbed and changed his clothing, but to no purpose. He had to renounce practice for six weeks. In

this city a skillful and rigid adherent to antiseptic methods had three deaths from sepsis in the space of one month.

Now, I have an idea that the success or otherwise of the individual doctor in obstetrics is all a question of chance. If the doctor is fortunate enough to have hands that do not perspire freely and during action do not exude the infectious germs from his sebaceous pores, he has uniform success. You know there are many men whom we call good surgeons, careful in technique and in all detail, yet a larger proportion of their cases go wrong than ought to. We call them unlucky and they are; they are born so, and ought to renounce surgery in consequence.

You cannot sterilize the skin by all the lotions of St. Louis or all the waters of Jordan. So we will continue to have our present mortality in midwifery until we are compelled to wear gloves at examination. That, I believe, is the best solution of the problem.

The whole question of disinfection of the hands has I think now passed out of the realm of drug worship. With many surgeons it is still a fetich and a rite hedged around with as many ceremonies as any other idol worship. The recognition of the role the sebaceous and sweat glands play in the infection has shattered the last fort of this faddist. The groping after truth is leading towards its ultimate solution, however.

For the immediate treatment of the hands friction in warm water and green soap with a very soft brush is first required. Then dip in the alcohol for a few minutes to dissolve off all sebaceous matter, then rinse finally in sterilized water or bichloride poured over the hands to remove all possible epithelial debris and your hands are clean. In a long operation in a heated room the hands, if perspiring, must be frequently laved, and this is best done by a flowing stream of either sterile or bichloride water; not that the bichloride is any better than the water, but you have the assurance that it is at least sterile.

The obstetrician ought not to have his nails closely trimmed. The nail is the best and safest of curettes, and is never liable to be left at home. I never quite saw the wisdom of cutting close the nails. The smaller the notch the more difficult to

clean, and the deeper the nail the less possibility is there of any overlooked germs being washed out of the fold.

The care of the hands is the most important point to the operator. Your book tells you to keep the hands soft, so they may be easily cleaned, etc. They are, it is true, more easily cleaned than the ragged, seared hands of the mechanic, but the softer they are the more readily they perspire and the more dangerous they in consequence become. Keep your hands free from gross lesions, wear no gloves, have the palms smooth and hard from the use of golf clubs or tennis racket or other such out-of-door weapons, and above all use no gloves or any covering prone to cause perspiration of the hands. Avoid all stimulants, lotions or antiseptics that irritate the skin or much rough friction, all of which tend to increase perspiration.

With these precautions all will be lucky. If you have been unfortunate enough to have had septicæmia a few times, or are the subject of erysipelas or drink much beer you are apt to be unlucky. Your own skin will be your ultimate undoing.

I think the profession in course of time will recognize the necessity of excluding the obstetrician from all surgical work. His hands ought not to come in contact with any inflammatory surface. The doctor whose work is confined to purely medical cases runs no risk of carrying infection to the woman in labor. The bugbear of communicating scarlet fever is, I believe, all a fiction. I have twice known medical men attend cases while suffering from scarlatina, and no fever followed. The so-called scarlatina of childbirth is but the scarlet eruption that frequently accompanies septicæmia.

The cases most prone to sepsis are naturally those where much blood is lost. The difficult forceps cases, strange as it may appear, very seldom suffer from sepsis. Probably the increased secretion of mucus, due to the irritation, cleanses the parts.

The women of the West have, I think, an easier labor than their Old World kin. In the popular belief the stronger the woman the easier the labor is supposed to be. The truth is, it is quite the reverse. In the muscular women the rigidity and tension of the inter-pelvic muscles and the os prolong labor, and cause an enormous expenditure of energy to over-

come the resistance. Of the women I have attended the peasant women of Scotland have had the hardest labors. They are the only people in whom I have seen general subcutaneous emphysema as the result of the struggle. At least two per cent. of them show it in some degree, and no one who has ever seen it acquired can appreciate the suffering its production implies.

The greatest obstruction to labor is muscular, and the weaker the woman is the less the suffering. Women who suffer from leucorrhœa have, I think, a particularly easy time.

I have met with quite a few very interesting cases. Two of embolism. The first I saw but ten minutes before death and half an hour after delivery. The second was in a case of pneumonia that miscarried at the seventh month, at the crisis of the disease, and on the second day had complete uterine inversion from excessive coughing, on the third day after had a hemiplegic attack on the right side, made a perfect recovery as far as any hemiplegic can, and has had two children since.

In a case of placenta previa, central with terrible hemorrhage, I hastily turned to save the woman and the head stuck as usual. We were ten miles from home, with no craniotomy instruments, and the delivery was urgent. After about one hour's working we delivered the woman, and as her other previous three labors were normal and easy, I examined and found a large circular thickening about three inches in diameter occupying the structure of the internal os to the left. It seemed probably a fibroid, but was too soft and velvety for that. I thought it was probably caused by the low implantation of the placenta, and was simply a case of excessive hypertrophy of the placental site, and one sufficiently large to obstruct the labor. The woman made a perfect recovery and in less than two years after was again delivered of a child. The labor was in every respect normal and the tumor that had so obstructed the previous delivery had totally disappeared.

Of accidental hemorrhages I have had a few, in all of which the child was lost.

In only one instance have I had a second hemorrhage. This case had an adherent placenta, which was detached by hand, with the woman under chloroform. The next day, eighteen

hours after, her uterus was filled with clots and she was flowing somewhat freely. I put her under chloroform, introduced the hand, and removed from the placental site a small but prominent nodule, which seemed to me to be fibroid in its nature. There was no more subsequent trouble.

Once only have I seen an hyatidiform mole. The woman looked like one at full time, when she had been but three months pregnant. The case was in every respect typical of the kind. My one fatal case was in many respects interesting. The woman, thirty-one years of age, III-para, had always been healthy, but when three months pregnant she suffered from "palpitation" and breathlessness. Examination revealed a purring murmur, quite perceptible to palpation, with an aortic pulsation at the neck and all symptoms of an ordinary aneurism of the aorta. The age and absence of syphilis were all against my diagnosis, for the affection at such an early age is very rare. I put her under medical treatment and in the sixth month edema of the legs began and gradually increased so that for nearly three months prior to delivery she lived night and day in a chair, unable to lie down. Labor came on at term and she delivered herself in the chair naturally and rapidly—no hemorrhage or other complication. She gradually sank and in forty-eight hours after died.

I ought to have procured abortion when the case was first seen, but I was young and had no experience in producing abortion. I have had, I presume, the usual percentage of cases of placenta previa, mostly partial, of course, though five were completely central. The partial, as a rule, give but little cause for anxiety, as the digital separation of the offending section immediately stops all hemorrhage. With the typical central implantation the case becomes at once a serious one, and constant care and watchfulness are required to terminate labor safely to mother and child.

Here, where so many women prefer small families or none, the doctor is saved any great concern about the child, and everything is accordingly sacrificed in the interests of the mother.

Of post-partum hemorrhage, I have had but one genuine case, and that proved amenable to ordinary treatment. Cases

of moderate flooding have of course been more frequent, but the cases that are the most annoying are those where slow hemorrhage takes place. You have finished your case, apparently there is no sign, outward, of hemorrhage. Pulse is a little fast, and you feel over the uterus to find it quite palpable and firm, but large; a little time passes, you feel it again and it is larger, and it may slowly fill until it reaches the sternum, or it may cease to rise above the umbilicus. There is usually no fainting and no sign of distress. The hemorrhage is too slow to precipitate the ordinary symptoms of hemorrhage.

Now what ought to be done is apparent, the woman feels all right and objects to interference, yet there is nothing for it but to introduce the hand and empty out that uterus, a painful and unpleasant thing for the patient. Not infrequently it may have to be done a second time.

Now, in spite of all precautions you will find that, after a long-continued labor, these cases are not so uncommon as is generally supposed. I drew attention to this many years ago, and found that my then colleagues had not the same experience. One man said frankly that while not infrequent, unless these cases were accompanied by signs of hemorrhage he left them alone, as the uterus had considerable tonicity left, and in the natural course contracted and expelled the clots. The next instance of concealed hemorrhage I left alone, with the uterus full of clots, to above the umbilicus. The clots came away in the course of the next three days, but with fetid odor and some fever. I afterwards decided that immediate removal of the clots was the less injurious procedure. The amount of blood lost in parturition varies greatly in different patients, but there are two conditions under which you may always expect hemorrhage or more than the normal amount—in cases of goiter and jaundice.

Almost all goitrous women flow more freely than normal at each menstrual period and are very prone to post-partum hemorrhage. The jaundiced women usually give premature birth and may be said to almost invariably flood. In these cases the changed condition of the blood, due apparently to the presence of the bile salts, deprives it apparently of its normal agglutinating qualities, and these cases as the result of the

combined jaundice and flooding, very frequently prove fatal. One of the most serious cases of hemorrhage I have had of recent years was in a case of this kind, and a fatal result was only averted, I believe, by the timely treatment instituted. The best treatment of hemorrhage is preventive.

Ergot, of course, is often useful if given in the third stage of labor, but the old adage about not giving it to primiparæ I have seen neglected, and I can recall two instances in which I had to give chloroform to overcome the contraction of the os and remove the placenta. The attendant had given ergot when the labor was about completed. The placenta not being readily expelled, the ergot, acting as it does more forcibly on the circular fibers of the os, caused such contraction that only chloroform could cause it to relax.

Puerperal convulsions are now becoming rare, and ought soon to be unknown. Among my own patients I have not seen a case since my first year in practice, twenty years ago, and I hope never to have another. While careful chemical analysis of the urine may not always give us a certain indication of the danger, there are very few cases in which the test for albumin or deficient elimination will not warn us of the impending complications.

The amount of albumin is no indication of the gravity of the case, as the following history shows. Primipara strong, healthy, eight months' pregnancy, urine scanty (seemed half albumin), general edema, legs enormously so, unable to lie down, sleeping for last two weeks in chair. A short, irritating cough, with bloody expectoration from edema of the lungs aggravated her misery.

She had slight pain, and I presumed she was in labor, but the edema of the vulva was so great I was unable to reach the os. The case seemed desperate. I took a bistoury from my pocket case and scored the labia and thighs with one to three-inch cuts. Don't puncture in these cases: punctured wounds are as dangerous at this time as any other. In a few hours I was able to rupture the membranes, and on the advent of the pains a colleague administered anæsthetic to the patient in a sitting posture, while I dilated by hand and delivered with forceps; twins, alive. All went well, and she has

since been confined, with no trace of albumin showing throughout the period of gestation. All cases of eclampsia tend to self-limitation, and nature, if given time, will herself cure. Hence the superiority of an anæsthetic. It keeps your patient from dying while nature cures.

The life of a woman in labor need never be despaired of; in fact, given fair play, no labor, however difficult, will kill her. I have participated in some fearful and bloody encounters with parturient women. In my student days I remember one of our teachers and two students spending two hours on a forceps with rope attached delivering a child from an abnormal pelvis. The woman did quite well. Nowadays we divide the pubes in such cases, and while this procedure may save the child, it adds little to the chances of the woman.

I have had many tedious experiences, and it has always been a matter of surprise to me that I cannot recall a single difficult forceps case in which the slightest septic troubles followed. The most rapidly fatal cases of septicæmia I have ever seen have been in absolutely normal labors, where no doctor or midwife ever attended.

Once in a difficult forceps case an apparently normal pelvis, with the child in the first position, I was almost completely baffled. I maneuvered and levered and pulled for close on two hours, when something audibly snapped, the obstruction yielded and delivery was rapidly effected. I thought the pubic bones had parted, but on examination I found the left parietal of the child had fractured clear across its upper one-third. Child and mother did well and the former, now five years old, seems to have been unaffected by the accident. There seemed nothing abnormal in this pelvis, and I have never seen or heard of such a thing occurring under such circumstances. With time and infinite patience the apparently most hopeless case will terminate favorably.

Our text-books and teachers gave us some advice that I would recommend the younger practitioners to be very slow in accepting. Authorities tell you that oftentimes, when unable to deliver with head presenting, you can turn and without difficulty extract the child. They will give you measurements, too, that prove the truth of the statement. That is all

right and true, and it happens so in some cases, but don't you do it; if it does not happen so, you are straightway in trouble. I never yet turned for that purpose that I succeeded in bettering conditions, and I have totally abandoned the procedure. If in a narrow pelvis you have to have recourse to the forceps for delivery of the after-coming head, Heaven help you. I know of nothing more trying to the operator or more damaging to the woman.

Turning by the introduction of the hand into the uterus with the patient under chloroform is a comparatively easy process, but be careful that you do not turn so as to have the face anterior instead of the normal way. Seventy-five per cent. of all beginners forget about this at the first attempt, and some only are fortunate enough to find the position in any way bettered.

We have all had difficulty more or less with laceration of the os and occasional severe hemorrhage, but I have no proposition in any way new to offer as to the management of this complication. If, after an apparently normal, but hard, labor, your patient seems to collapse without showing signs of hemorrhage, don't be deluded into thinking it is just a nervous collapse; you have a lacerated os to deal with afterwards. A case of ruptured uterus I have never seen. Twins I have had in about the usual number of cases. They run in families, as the saying goes, and these families are mostly of a phthisical habit. It is nature's attempt to save the type, where the individual liability to death is greater than normal.

Of the perineum I have said nothing, and what little I shall say will probably bring out many contrary expressions of opinion. I have seen many perinea torn in spite of the best attempts at supporting them, a method of procedure that I think is useful to some extent. Now and then we meet a case where the perineum ruptures like a sheet of wet blotting paper from what seems an inadequate force. Once one such ruptured clear into the rectum. The minor tears I at one time sewed up immediately after. I never knew but a very few of them give complete primary union. That it is possible to acquire primary union in such circumstances I do not deny, on the general principle that all things are possible, but

though I know I am talking what the theologians would call rank heresy, I can safely aver that I have seldom seen in my own or any other hands complete primary union of the torn perineum. They often apparently do well, it is true, but after-examination reveals that none are so perfect as such result ought to be.

The reason is obvious. We have a lacerated wound with a line of union that we cannot keep dry or otherwise protect from the entrance of germs. Primary union is not very natural under these conditions. But if you wait for three or four days, until the surface of the laceration has acquired a healthy granulating surface (such a surface is not capable of easy infection, as the established circulation withstands infection), then your stitching of the perineum will give you a perfect result.

Current Comment.

R. E. McKechnie, M. D.:

I wish to preface the following remarks by explaining that the points touched on are not of the abstruse order, but *common every-day subjects*. My opinions have been arrived at, not from a reading of text-books, but from *hard, every-day experience* in a busy practice. And the success met with leads me to hope that I may be allowed to express myself with confidence engendered by the results obtained. In ten years there have been in my practice 1250 confinements, with 3 deaths; 285 miscarriages, with 1 death.

My first death was in a woman of forty-six, with marked disease of the aortic valves, in extremis when I reached her, and dying inside of ten minutes of my entrance into the house. The second was a case of placenta prævia, in seventh month, in one married about five months. In an attempt by the victim to cover the anachronism by tampering with herself hemorrhage set in. She did not send for help until her loss was great, and then sent for a midwife, who told her it would come all right, and who in turn waited until she was scared

by the heavy flow before sending for me. The result can be anticipated.

The third, also placenta prævia, was not properly my case, falling into my hands through the absence of the attending physician, and being so far gone as to be dead in about fifteen minutes after I saw her.

The fatal miscarriage was self-induced—a typical malignant case of septicæmia—help not summoned until case was hopeless. With this explanation concerning my fatal cases, I can safely claim that my methods were not at fault, and excluding these, have yielded uniformly satisfactory results.

Then, first, as to position. I have found the lateral best for all purposes. To begin with, the patient is less exposed, and even the most unrefined woman appreciates attention to this detail. In using forceps everything is in favor of this posture. Absolutely no assistance is required, except in fat women, to lift the thigh as the handles sweep forward. It is easier to pull in the axis of the brim than with the patient on her back, and it is easier to judge this axis correctly than when the dorsal position is used. The perineum is in sight and under absolute control, hence one can look for the minimum of lacerations. But the chief advantage of the lateral position, when forceps are used, is that it is possible to use leverage in the line of traction, instead of doing as so many do, pulling with all their might one way, with a couple of women pulling the other, to prevent the doctor pulling the patient all over the bed. If the following technic be carried out the operation is shorn of its appearance of brutality, more force can be used with less effort, and all dangers from slipping are done away with, as the forceps can slip only an inch or so. The forceps are applied in the ordinary manner, the handles brought back into the line of traction desired, or as near to it as possible, and then grasped firmly by the right hand, with its ulnar edge next to the buttocks. Only moderate traction is made with this hand, its chief use being to compress the handles, and thus grip the head firmly during extraction. If the head be high up, the lock is at the vulva, the hilt of the forceps just outside. Traction is then made by the right hand sufficient to allow the left hand to grasp the shanks of the forceps below the hilt, with

the ulnar side of the hand against the vulva. The lever consists of the forearm, wrist and hand, the fulcrum being at the wrist where it rests against the buttock, the long arm of the lever extending from this point to the elbow. Force exerted by gradually throwing the weight of the body, through the arm, on to the elbow, gives an advantage of about three to one, the long arm of the lever being about three times that of the short arm; hence, twenty-five pounds pressure gives you seventy-five pounds pull. This is combined with traction in the axis required, by both hands giving all the force needed with the least effort. In addition, the direction of the force exerted at the fulcrum prevents the patient being pulled about. When the head advances an inch, or the forceps slip, the power of the leverage is lost until the fulcrum is readjusted, hence the slip cannot be great. The forceps are under absolute control. By the time the head is down so low that the handles begin to sweep forward, this leverage system loses its advantage, but is not needed any longer, as the most difficult part of extraction, as regards force, is passed, and the head is delivered by ordinary means.

The Douche.—As regards douching, I think it is overdone. Formerly I gave an intra-uterine douche after each instrumental case. To-day I never do so, unless there is good reason for it.

Twins.—In handling a case of twins many practitioners, after delivery of the first child, wait until pains set in, and the second child is well forced down, and probably then leave it to nature. As in these cases the uterine wall is generally over-distended, and the pains weak, this may cause a delay of an hour or so, and only prolongs the suffering without gaining any advantage. To increase the pains, to make sure of prompt contraction when the uterus is emptied, and to prevent undue hemorrhage, it is well to at once give ergot. Then stimulate the uterus by friction on the fundus, if needed, and proceed with the extraction of the second child. There is no need to wait, for the canal is fully dilated. The first child has made the road to travel easy, and no harm results from rapid extraction, with forceps if the head presents, or by introducing the hand and securing a foot if the reverse be the case. I think er-

got should be thus used early in all cases of twins, and, as indicated; also in all cases where the uterus is excessively dilated, as by excess of water or by an extra large child, the object being to aid the weakened wall in its contractions, and thus prevent hemorrhage after delivery, which is so common with an undistended uterus. Judgment, of course, is needed, especially in the last named class.

The Catheter.—I well remember, shortly after graduation, calling one evening on a medical friend. Later on I took a long walk with him as he went to catheterize a confinement case. On inquiry I learned that quite a few of these cases needed the same attention. I know that this is the experience of many. In ordinary general practice we have to get along with all sorts of nurses, very few of whom could safely be trusted with a catheter, hence it is necessary for the physician himself to take the matter in hand. So the first thing in the morning and the last thing at night, for the first few days, he has to endure this unromantic drudgery, toil pure and simple, which must be attended to, whether he be worn out for want of sleep or not. My experience has been that rarely is it necessary to use the catheter at all. In fact, I do not think I have catheterized a confinement case in the last five years, with the exception, perhaps, of some with a ruptured perineum newly repaired. I instruct the patient to turn over on her stomach, and then get up on her hands and knees, taking care not to assume the erect position. The nurse then pushes the vessel under her, and the act is completed without further trouble. I have never yet had any ill effect from this procedure, and do not expect any. Some cases have exceeded directions and assumed the erect posture, sitting on the vessel placed in the bed, and even with these no harm has resulted. When one considers the size of the uterus in the first few days, it is seen that a retroversion is out of the question, and a relapse not probable. However, the position on the hands and knees is perfectly safe, and, in addition, is effective, and will save the weary practitioner many a midnight stroll.



F. B. Jessett, M. D.:

There are few, if any, diseases peculiar to women which cause distress than *prolapsus and procidentia of the genital*

organs. Not only is the pain and discomfort arising therefrom very great, but women suffering in this way are totally disabled from following any active pursuit in life, and the only course open to them is to have recourse to the surgeon.

Surgical treatment should be had resort to in all cases in which procidentia is complete. When the cervix, as so often is the case, is found to be hypertrophied, it will be always advisable to amputate the hypertrophied portion, or some portion of it; it may be that one or both lips, or the entire infravaginal portion, has to be removed. In doing this care should be taken, especially in women who have not reached the menopause, to take precautions to cut out a wedge-shaped piece, allowing thereby the edges of the mucuous membrane of the vagina and cervical canal to be united over the cut surfaces, so keeping the uterine canal patent. A sound should be introduced into the bladder to serve as a guide to the surgeon when removing the hypertrophied cervix, and it must not be forgotten that often the folds of peritoneum are prolonged downwards both anteriorly and posteriorly; to avoid wounding these the point of the knife or scissors—I prefer the latter—should be always kept directed to the part to be removed.

The next step taken is to restore any injury that may exist of the pelvic floor first, as regards the perineum; secondly, as regards the pudendal aperture; and, thirdly, as regards the vaginal walls.

It is obvious that, should the perineum be torn, either partially or completely, this must be repaired, if any hope is entertained of completing a cure; to accomplish this, I think all will agree that no operation is so successful as that which was first proposed by the late Maurice Colles, of the Meath Hospital, Dublin, and subsequently carried out and perfected by Tait, namely, the flap-splitting operation.

When the vaginal walls, in all extreme cases, accompanied by cystocele or rectocele, or both, are very much thickened and stretched, means must be adopted for narrowing the hernial canal; it must not be forgotten, however, that the mere narrowing of this canal, and repairing the perineum, will not in themselves prevent recurrence of the protrusion, which is also due

to changes which have taken place in the uterus and its ligaments, but, on the other hand, unless the canal is considerably constricted, all methods which might be adopted for fixing up the uterus will be abortive.

Colpo-perineoplasty.—Numerous ways for causing contraction of this canal have been suggested. The creating of a circular ulcer by means of the actual cautery, thus producing cicatricial ring, have been practiced, but with no very encouraging results. I have adopted in some cases the plan of using the actual cautery, making deep longitudinal eschars, radiating from the cervix to the vulva, as many as six or eight, these extending the whole length of the vaginal walls; this method certainly has a very marked effect in reducing the caliber of the vagina. Distinct advantage can be gained by dissecting a longitudinal diamond-shaped strip of mucous membrane of the posterior wall of the vagina, and suturing this. This dissection should begin close to the cervix uteri, widening it as it goes down, till in the middle the entire breadth of the wall is denuded of its mucous membrane, and narrowing again as it comes down toward the urethral orifice. A continuous catgut suture closes the wound in stages; by this means the utero-sacral ligament is practically restored. Introduced at the lower end, it narrows the raw surface, as it is carried from side to side till it reaches the cervical end; as it is carried down again towards the lower extremity, it brings the sides of the wound and muscular tissue together at its widest part; and in its third stage, as it is again passed upward, it will bring together the mucous membrane at the margins.

Shortening the Ligaments.—The third indication in treatment is that of shortening the ligaments which suspend the uterus, or of adopting some form of operation for the suspension. Alexander's operation, doubtless in many cases of retroversion in which there are no adhesions, is a very simple and good operation, but in many cases of prolapsus, where the whole of the uterine ligaments are relaxed, this measure by itself is, in my opinion, quite inadequate, and I am strongly impressed that nothing short of vaginal or abdominal hysteropexy will be of any service. Of colpohysteropexy, however, I have had but little experience, and I am strongly in favor of

opening the abdomen, and being guided by the state of the uterus and its ligaments. I think this proceeding is better, if for no other reason than that you can deal with any adhesions which may exist; you have a thoroughly good view of all the parts; and if the patient is placed in Trendelenburg's position, and Doyen's abdominal retractor used, the condition of all the ligaments can be ascertained.

Hysteropexy.—Gastro-hysteropexy as usually performed is, I consider, insufficient to retain the uterus in place; in the first place, if the surgeon trust merely to fixing the uterus to the abdominal wound, he will find, notwithstanding he may have either previously or as a secondary operation repaired the points of support in the vagina and perineum, that the uterus, merely from its own weight, will gradually drop and become elongated, the peritoneal attachment to the abdominal parietes will stretch, and matters, in many cases, in time will become as bad as before the operation. It is absolutely necessary, at the same time as the uterus is fixed to the abdomen, to attend to the ligaments of the uterus. Moreover, in all cases of complete relapse accompanied by rectocele and cystocele, either one or both being present, the walls of the vagina will have been so thickened and separated that, although the uterus may be drawn up and fixed to the abdominal wall, there will be found to be a great amount of bagging in the vagina, which will drag upon the os and cervix and tend to draw the whole uterus down. To guard against this the round ligaments should be shortened by doubling them upon themselves and fixing with silk sutures, but more especially the utero-sacral ligament must be restored. This will be more necessary in those cases of procidentia of the rectum and posterior wall of the vagina, in which the peritoneal covering in the pouch of Douglas is prolonged downwards into the pouch behind the uterus; in these cases it will be necessary to place several tucks in, the posterior fornix being pushed up by an assistant with a pair of long forceps. In cases of cystocele the bladder may be drawn up and stitched to the peritoneum covering the uterus. The method of fixing the uterus to the parietes I consider is very important. The usual plan adopted is to pass one or two sutures through the fundus of the uterus at its upper

point and fixing it to the parietal peritoneum. This is not based upon scientific principles, for by doing so the uterus is kept in more or less a vertical position, which is not a correct position. The uterus should be restored to its normal horizontal position as much as practicable; this can only be done by passing a couple of fine silk sutures, some half an inch below the fundus on its posterior aspect, and fixing the muscular substance in the parietes, as near to the pubes as practicable, the sutures being passed through the fascia and recti muscles, so as to have a good firm hold, and not allow of any separation of the peritoneum.

Hysterectomy.—The final plan of treatment—namely, hysterectomy—is very rarely requisite; but in some old women, in whom the uterus is found to be quite outside the vulva, the os ulcerated, and great pain existing, I think that hysterectomy is the best practice, as the operation itself causes but very little shock to the patient, and, the organ being useless as an organ, there can be no reason why the patient should not be relieved from her suffering with the least possible risk to her life.

♦ ♦

W. J. Matthews, M. D.:

The bimanual method of applying *accouchement force* consists not only in complete dilatation with disappearance of the external cervical ring, but also in paralysis of the ring, so that the dangers of extraction, whether by forceps or version, may be reduced to the minimum for both mother and child. By this method you insert the index and middle finger of each hand into the cervix and forcible, yet gradual and careful, stretching is made until full dilatation with paralysis has been accomplished. I believe the bimanual method to be superior to other manual and instrumental methods for the following reasons: First, the membranes are preserved throughout the operation or until full dilatation is obtained. Second, there is no interference with the original presentation and position. Third, there is no constriction of the operator's hand. Fourth, the amount of force exerted upon the external ring can be better estimated, and hence there is less likelihood of lacerations occurring. Fifth, in placenta prævia there is less preliminary

separation of the placenta by this method than by any other. Sixth, by no other method can not only complete dilatation, but also complete paralysis of the parturient os be so quickly and safely obtained. Before reporting a case, I wish it distinctly understood that accouchement force as described is only intended for desperate emergency cases. That in the general run of obstetric practice it will seldom be required. Nevertheless, it is believed by the writer that there is a certain number of cases in which the lives of mother and child can be saved only by this method. In cases demanding accouchement force, we have to act, and act quickly. The weapons of our warfare must always be on hand. Rubber dilators might accomplish the work, but rubber goods are perishable and may fail us just at a supreme, critical moment. So in every way we prefer educated sensitive fingers to dilate the cervix to the most ingenious dilators invented by human skill.

In a case of placenta prævia I helped one of our colored physicians. Just before I saw the case the patient had a violent hemorrhage. Her pulse showed but too plainly the great loss of blood she had sustained. On examination I found that she had central implantation of the placenta. Introducing my hand into the vagina I separated the placenta all around the lower segment of the uterus as far as my index and middle fingers could reach. Very little bleeding followed this maneuver. Then by the bimanual method I performed complete dilatation of the cervix. I then tried diligently to pass my fingers and hand by the border of the placenta, but it was adherent everywhere, so I was forced to pierce the placenta with my fingers in order to pass my hand into the uterus. As I was forcing my hand through the placenta the blood rushed furiously past my arm, but I quickly seized a foot, turned, and by traction on the foot brought the breech down to engage at the superior strait, causing strong pressure to be exerted on the placenta, thus rapidly arresting the much dreaded hemorrhage. In a short time the child was born. It was dead. I immediately delivered the placenta. The greatest trouble in the whole case was to arrest a threatening severe post-partum hemorrhage. It is my firm belief that no other treatment would have saved this woman's life.

B. Campbell, M. D.:

It is now, I believe, common practice among progressive physicians to close a lacerated perineum, but I believe it is not common practice *to correct a relaxed vaginal outlet and everted vaginal walls*. The responsibility of the physician does not cease when he has performed an immediate operation upon a lacerated perineum, following labor, and obtained good union, not if, in six weeks or two months, following labor, the anterior segment of the pelvic floor or posterior segment is weakened, these two demand repair.

It is now the teaching of our most progressive gynecologists, that the uterus within itself following labor is but a secondary factor in the production of prolapsus, and that it is caused by intra-abdominal pressure upon a pelvic floor, injured and weakened by th traumatism incident to labor.

The pelvic floor may not be injured by a single normal labor, but is more generally the result of frequent labors.

The repair of the pelvic floor cannot well be the province of the specialist in gynecology altogether, but must be performed more frequently by the general practitioner and obstetrician. The surgery for the repair of the pelvic floor is simple, and any physician who is capable of properly conducting a woman through confinement should also be able to successfully operate in repairing the pelvic floor.

Vesico-uterine, vesico-vaginal, and recto-vaginal fistulas may also be enumerated as occasional injuries to the pelvic floor incident to childbirth.

These conditions, besides being very annoying to the patient, also tend to weaken the pelvic floor and should be repaired by operative procedure.

The points insisted upon are:

That prolapsus of the uterus is, strictly speaking, hernia of the uterus, due to weakening of the pelvic floor from different causes.

In child-bearing women the cause usually is from the traumatism inflicted upon the pelvic floor incident to labor.

That the pelvic floor, wherever injured, should be repaired as a preventive measure in the production of hernia of the uterus.

That the reparative work upon the pelvic floor must necessarily be the province quite largely of the general practitioner.

That the physician who is competent to safely care for women in confinement should also be competent to repair the pelvic floor.

♦ ♦

R. G. Miles, M. D.:

The following is a report of an *emergency operation for ruptured tubal pregnancy*:

A housewife, aged thirty, was married at seventeen. At thirteen began menstruating, which was always regular and painless.

She has given birth to six children at term, five of which are dead. The one living is a healthy girl of eight years.

Five years ago she was confined to her bed for three months following childbirth. One miscarriage two years ago, and was confined to bed for three weeks at this time.

Menstruated last on October 5, 1901, but had only a show. Thought herself pregnant about two months. I was called in council on December 3, 1901, about 11.30 A. M. Found the woman suffering from shock. She was almost pulseless at wrist and could not count pulse. Made an examination and concurred in a diagnosis of ruptured tubal pregnancy and advised immediate operation. The woman refused to be taken to the hospital and I thought anyway that she would not stand an ambulance ride, as she seemed to be bleeding. An operation at 2 P. M. confirmed this supposition. Pulse was not perceptible at wrist and Dr. McDowell, who administered the anæsthetic, called me to the bed twice, asking the advisability of continuing the anæsthetic, which I advised continued cautiously, as it was a case of life or death, as the patient evidently would last but a short time unless bleeding was controlled.

I made the operation with the assistance of Dr. Pollock, and found large quantities of fluid and clotted blood in the abdominal cavity, also a fetus which I think was about six weeks old. At first I thought it a cyst which had separated from tube or ovary, as it was about the size of a robin's egg. The membrane was intact and filled with amniotic fluid. The tube

was ruptured in two places, one near cornu of uterus, the other near distal end. The patient bled profusely after abdomen was opened until artery was ligated. Her condition improved as soon as artery was tied and she made an uneventful recovery, being able to leave her bed in about three weeks. She never had any annoying symptoms after operation.

This operation was done in a room about 10 x 12 feet and with no antiseptics, only boiled water being used.

The instruments consisted of four artery forceps, one knife and one pair of scissors, one pair of hysterectomy forceps, glass drainage tube, needles and sutures. Drainage tube was retained for thirty-six hours.

My object in reporting this case is to urge immediate operation as soon as diagnosis is made and not to condemn a woman to death because she is not in a well-equipped hospital or because you have not an army of trained assistants or lot of useless instruments and a group of much-abused antiseptics.

♦ ♦

W. Sykes, M. D.:

The causes of *hirsuties after pregnancy* (as also of the alteration in pitch of voice and absence of milk) are all probably owing to some disease or degeneration of the ovaries, either caused by or merely accompanying pregnancy, and an attempt at cure might be made by the administration of ovarian substance in tabloids given freely and frequently. Locally no depilatories destroy the hair-bulbs. X-rays cautiously and skillfully applied are the most likely of the remedies possible. If neither of these remedies prove effective daily shaving is the only other palliative to be recommended, excepting that most unpopular of all remedies, "to grin and bear" the discomfort.

♦ ♦

W. A. Briggs, M. D.:

In my earlier experience, while I cannot now recall them, I have yet no doubt whatever that in both my personal and consultation work a number of cases of *misplaced pregnancy* escaped recognition; how many, it would, of course, be futile to inquire. Of this I am, for several reasons, quite firmly con-

vinced. Only one each of my cases, nine personal and nine consultation, occurred during the first half of my twenty-two years' practice. During these years my conception of the symptoms of tubal rupture in misplaced pregnancy was the usual, not to say classical, one of collapse from internal hemorrhage. The symptoms of rupture, says Lusk, are the usual ones of internal hemorrhage, viz., yawning, languor, fainting, clammy perspiration, vomiting, collapse, and acute anæmia. Even such recent authorities as Jarman declare that the main symptom (of rupture) is collapse of varying degree. This statement is qualified somewhat by the context, but, in my opinion, by no means sufficiently.

Whoever thus envisages ruptured tubal abortion will assuredly overlook a very large ratio of cases. That I did so in my earlier experience, I am quite convinced. Disregarding this indefinite number of presumptive cases, there stand accredited to me in my personal practice nine cases of misplaced pregnancy, constituting a ratio of about 1 to 250 of my obstetrical work, and in my consultation practice the same number, a total of 18. A limited and individual experience does not furnish a trustworthy basis for general conclusions, and yet I cannot resist the impression that in general practice misplaced pregnancy in the majority of cases escaped recognition.

By careful investigation, tubal pregnancy may be recognized frequently before and generally after rupture or abortion.

In the diagnosis of misplaced pregnancy several interesting and difficult questions arise:

Does the pregnancy exist?

If so, is it uterine or tubal?

If the pregnancy be tubal: (a) Is the tube still intact? (b) Is tubal abortion in progress or completed? (c) Has tubal rupture taken place? (d) If rupture has occurred, is it intra-peritoneal or extra-peritoneal?

The diagnosis of tubal pregnancy before rupture or abortion is based on—(a) the usual evidence of pregnancy, plus (b) irregular uterine hemorrhages from the fifth week onward; (c) the passage of decidua without fetus; (d) tubal colic; (e)

the existence of an elastic, rapidly enlarging tube corresponding in size with presumed period of pregnancy and with the absence of tubal inflammation.

Tubal abortion is to be diagnosed with more or less probability when, in the course of tubal pregnancy a rapid and saltatory increase of the pelvic tumor is coincident with recurrent pelvic colic. A completed abortion may be inferred from a gradual diminution of the tumor following permanent cessation of the colic.

The diagnosis of ruptured tubal pregnancy is based on—(a) evidence of tubal pregnancy, as detailed above, plus (b) sudden, severe, even excruciating, pelvic pain radiating into the abdomen; (c) tenderness low down over the abdomen, due to peritoneal irritation rather than peritoneal inflammation; that is marked tenderness, accompanied by little or no contraction of the abdominal walls; (d) if hemorrhage be rapid and profuse, the symptoms of acute anæmia; if slow and moderate, the evidence of a hæmatocele either of the cul-de-sac or the broad ligament; (e) shock in proportion to sensitiveness of nervous system, severity of pain, and loss of blood, frequently not extreme.

The differential diagnosis between intra and extra-peritoneal rupture is difficult and uncertain. The rapid formation of a dense, circumscribed tumor, presumably in the broad ligament of the side corresponding with the pregnant tube, coincidently with the evidence of rupture, would naturally excite suspicion, but does not warrant a positive diagnosis.



Walter Lindley, M. D.:

In regard to the effect of the operation *oöphorectomy* upon women who are previously normal in their mental and nervous condition, my experience has been that there were no bad results. Out of about twenty cases that I have personally observed, there have only been three in whom nervous symptoms have possibly been attributed to *oöphorectomy*, and in these there was room for doubt as to whether the operation was the cause of the trouble. Where nervousness can be traced to tender, painful, and neuralgic ovaries, *oöphorectomy*, and consequent menopause brings on prematurely that good nature,

cheerfulness and content that we generally see in nervous women following the natural menopause.

Without having taken any accurate notes on this subject, my impressions have been that the woman upon whom hysterectomy has been performed, and where the ovaries have been left, makes a quicker and more satisfactory recovery than the patient who has had oöphorectomy performed. I could point to a considerable number of cases of women who have great responsibilities, and hold, you might say, eminent positions, upon whom hysterectomy has been performed, and yet who are having the brightest and most successful years of their lives.

And, to sum up the matter with my very indefinite data, I would say that, in selected cases of epilepsy and insanity, where there is a real disease of the ovaries, producing artificial menopause is advisable and justifiable, and that in any woman who has diseased ovaries the fear of producing nervous and mental diseases should not in any way interfere with the decision to promptly operate, but the preferable operation is to remove the uterus and leave the ovaries.

♦ ♦

J. M. Withrow, M. D.:

My experience in a case of *prolapsus of pregnant uterus, following amputation of with delivery by forceps after incision of cervix* has taught me two lessons. In the first place, it is not difficult to make an incision of the cervix in any case where it is very firm or cicatricial, and I do not believe that it would be unwise in cases where dystocia ensues, from slow dilatation from whatever cause, to make several incisions in the cervix.

It also would seem from this experience that the tear which so frequently takes place in the cervix would be less extensive in the any direction if such incision divided the amount of laceration in three or four directions.

I am also convinced that the immediate repair of the cervix, whether in cases of incision or in cases of ordinary laceration, is perfectly feasible and always advisable. The ease with which it may be done makes it possible for anyone under a good light, with the parts exposed by a pair of Sims specula, to immediately and quickly make perfect and complete repair

of any laceration. I know it has recently been decided in some quarters that immediate repair of lacerated cervix is wise and justifiable surgery. There can be no question of the wisdom of this suggestion.

There is also recently a general trend of belief that laceration of the cervix predisposes to malignant disease. It is certainly well known that injuries to the cervix, unrepaired, are productive of very many unfortunate sequelæ. From either one of the above positions, then, the repair of the cervix would be a justifiable procedure on the part of the obstetrician.

Again, not enough stress has been laid upon the results of considerable hemorrhage which takes place during the first few days of the puerperium, caused by the severe tear of the cervix.

The results of this loss of blood lead to prolonged convalescence, usually leaving the uterus in a condition of subinvolution. The repair should be made if for no other reason than to prevent this issue.

A round, full-curved needle, armed with chromicized catgut should be employed. The tissues are usually so well supplied with blood that the ordinary plain catgut would be too quickly absorbed.

The sutures may be either interrupted or continuous, and should not be tied tightly.

♦ ♦

J. C. Stinson, M. D.:

There are points I shall run over regarding *the choice of incision for ectopic gestation*. In March, 1897, I published a paper in which I drew the following conclusions:

That ectopic gestation is strictly a surgical disease. That an ectopic mass should be removed by abdominal section as soon as the diagnosis is made, no matter what the stage of the disease. That with careful antiseptic and aseptic precautions, provided the operator is familiar with the special anatomical conditions associated, an operation for ectopic gestation has a mortality at or about *nil*, or less than that associated with the condition previous to operation. That an ectopic mass should be removed by enucleation, with ligation of bleeding vessels only, using absorbable ligatures; the pedicle should

not be transfixed or tied off in sections, but should be cut across, and only the individual vessels ali-gated. This does away with mass, non-absorbable, and dead ligatures, sloughing and painful stumps, pelvic exudates, the cautery, and wandering ligatures, etc. That enucleation is the safest, simplest, and most scientific method of removing an ectopic mass., etc; there is no danger of hemorrhage; if a vessel is severed, it can be caught at once and ligated. That with enucleation there is less danger of injuring adjacent viscera; recovery is rapid, and the danger of sepsis is reduced to the minimum. That when a Fallopian tube is removed, the operation should be complete; no stump should be left. When the serosa of the tube at the tubo-uterine junction is not totally destroyed, it should be divided in a circle about a quarter of an inch from the uterine cornua, dissected back to the uterus, and the cut edges, after cutting off the tube flush with the uterus, united by continuous catgut sutures. That in removing an appendage, etc., by enucleation, the cut edges of the broad ligaments should be united with a continuous, absorbable suture. That, even when both appendages are removed, a uterus that is in a good position and not irreparably diseased should not be removed. That if there is a local or general infection, the cavity or cavities should be freely flushed with hot saline solution. That, if drainage is necessitated, one or more Morris capillary gauze wicks should be used, instead of iodoform or other gauze packing, glass, or other stiff tubes. That, to prevent hernia, the incision should be small, using, if drainage is necessitated, capillary wicks, and the wound be closed layer by layer separately, and thus accurately, with sterilized, chromicized tendon or chromicized catgut.

I consider that, by employing a short abdominal incision, and closing the wound above, provided primary union occurs, there is no danger of post-operative hernia. The only exception to the above rules in operating for ectopic pregnancy are early unruptured cases that can be successfully removed through a vaginal incision. These cases are rare, for, as a rule, the operator is not consulted before rupture has taken place.

I have several times tried to remove ruptured tubal preg-

nancies through a vaginal incision, but the operation had to be completed in each case through the suprapubic incision to obtain success and recovery. There is always less danger of sepsis through the abdominal than vaginal incision, because the former can be more thoroughly prepared, and the manipulations are also easier and safer from above. One can leave just as many ovaries while operating through the abdominal incision as through vaginal; in fact, I think more can be left from above, as one can see, feel, and do more conservative plastic surgery through the abdominal opening.

In most cases of intra-pelvic inflammation or pus low down approach from below the disease is best through vaginal incision. Any tumor, etc., of the uterus or vicinity that can be handled successfully through the vaginal incision should be removed from below. One must be careful in not wasting any time in trying to operate on cases through vaginal incision, for if a case cannot be successfully approached from below, one has afterwards to make suprapubic incision, which, being done after vaginal operation, is liable to prolong the surgery and endanger the patient.

I have had considerable experience in treating cases of retroversion and retroflexion through the anterior vaginal incision and am well impressed with this operation in suitable cases wherein the uterus can be brought forward without tension and the sutures can be inserted satisfactorily through the anterior wall of the uterus and brought out on each side of the vaginal incision; furthermore, the highest stitch through the anterior wall must be inserted below the level of the origin of the Fallopian tubes from the cornu of the uterus. Several other stitches are thus inserted lower down. This method must be followed in order to have the uterus in normal position, and at the same time not interfere with subsequent pregnancy. Scarification of the uterus must not be done in these operations, as it is unnecessary, and, furthermore, too much damage is usually done to the anterior uterine surface by the tenacula used by the operator. I do not think well of the fancy method of ventral fixation done through vaginal incision. Such a method has obviously no place in surgery.

I consider that there is no more danger of shock by operat-

ing through the abdominal than any other incision. Every progressive surgeon is using the vaginal incision whenever it is possible to employ it successfully. I have employed it since 1895, and have used it either as a diagnostic, curative, or partial operative procedure in every diseased condition in which such an incision is indicated.

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E. J. Wilson, M. D.

It is often most difficult to consider *sterility in the female* without considering the same condition in the male. I will pass the moral aspect of the question by saying that the fault is not altogether that of the wife.

It is difficult for a physician to make a positive affirmation that a patient is sterile. The conditions that warrant one in expressing the opinion that a woman is sterile are largely mechanical and nutritive. Mechanical causes include deformities of the uterus or lack of development in any part of the genital organs. These causes include many pathological conditions that result from inflammatory conditions of the mucous membrane of the uterus. In earlier years I was wont to place mechanical causes, such as deformities of the uterus or ovaries, first among the causes of sterility. Longer observation has led me to place the results of inflammatory lesion first in the list. These inflammatory lesions are to be traced in many cases to the unfaithfulness of the husband. Occasionally infection of the uterus occurs as the result of the patient's effort to carry out home treatment. In not a few instances I have been called to see a woman seized with severe pain after having administered a vaginal douche to herself with a fountain syringe at considerable elevation above the body. No doubt in some of these instances the infection following has led to mechanical obstruction and hence to sterility. In some instances it may be due to the carelessness of the physician. Sterility often follows marked cervical laceration. The large amount of secretion may wash away the spermatozoa and in many instances a woman will continue to be sterile after the repair of the injury.

My observation would lead to the conclusion that efforts to overcome it have been futile, yet in many instances where there

is marked contraction and stenosis patients have conceived and borne children. In one instance where sterility had existed a number of years, artificial introduction of the spermatozoa was tried for a period of time, and after these efforts were discontinued the woman became pregnant in the natural way. The causes I would place first are the mechanical giving rise to conditions that do not favor the lodgment and nourishment of the ovum.

♦ ♦

C. F. Adams, M. D.:

A patient suffering from *incontinence of urine* presented herself with the following history: twenty-three years of age, been married five years and had two children. Confinements normal. No miscarriages. Menstruation at thirteen, regular, twenty-eight days, three to four days' flow, with no pain. Since the birth of her last child has suffered with a pain in the back of a bearing down character, but particularly complains of inability to hold her water. Since early infancy she has constantly wet the bed, and unless the bladder is relieved every few minutes during the day, the clothes are soiled. Examination showed a lacerated perineum and a cystocele not very marked; cervix in good condition and appendages apparently normal. The patient was very desirous of an operation and especially one that would relieve her of her incontinence. An anterior colporrhaphy was decided upon, following the method of T. A. Emmet. This operation was performed by making a V-shaped denudation on the anterior vaginal wall, the limbs of which extended well out on the lateral fornices of the vagina, to such an extent that they could be approximated at the median line, immediately in front of the cervix, without too great tension. Another area was denuded just in front of the cervix, transversely to the axis of the vagina, one inch long by three-quarters of an inch wide. The extremities of the limbs of the V were then folded down on this central denudation by means of interrupted sutures of chromicized catgut; then the remaining portions of the two limbs were united to one another, down to the apex of the denudation, which was situated just behind the meatus of the urethra. As the urethra was approached the sutures were introduced so as to

fold in the lower wall of the urethra and overcome the relaxation of the muscle wall. When the operation was completed, we had the bladder swung well up in the pelvis, drawing the urethra taut under the pubic arch and the caliber of the urethra diminished. A perineorrhaphy was performed at the same time. The patient was immediately able to hold the urine six hours at a time and has had complete retentive power ever since; a period now of about one year.

While I do not wish to hold this operation up as one specially adapted to the cure of incontinence, yet I do claim that many cases of incontinence can be cured by it and it should be resorted to first whenever there is any tendency to cystocele, before subjecting the patient to other operative procedures for its relief.

♦ ♦

Charles R. Robins, M. D.

An exceedingly common affection which gives rise to most distressing symptoms is *retro-displacement of the uterus*. It is also concerned in other serious affections, the successful treatment of which must provide for some method of retaining the uterus in its normal position. Of the two general methods of treating retro-displacements, by pessaries and by operations, it is undoubtedly true that in proper cases the pessary is capable of securing a permanent cure where it is intelligently applied and associated with proper treatment. But there will be left a very large class in which nothing short of an operation will meet the requirements. A recent textbook describes no less than fourteen different procedures for correcting this displacement, and this does not pretend to be a complete list, but such operations are selected as are a type of a class, or which involve some important modification.

Alexander's operation is theoretically ideal, but unfortunately its field is very limited. Even when it is clearly indicated there is much that can be registered against it, and it not infrequently fails to accomplish the desired result. When it is successfully performed it possesses distinct advantages over any other operation, but there are many disadvantages and causes for failure that are generally recognized.

Ventro-suspension possesses so many advantages that it has

held the field in spite of all that has been said against it. The opportunity given by exploring the pelvic viscera and correcting pathological conditions, the certainty with which the anterior position is maintained, the ease and celerity with which the operation can be performed are three distinct advantages that have made this the favorite operation of the gynecologist. An ever-increasing list of catastrophes, however, due to this operation cannot be ignored.

An operation, therefore, which will accomplish all that a ventro-suspension will and possess none of its disadvantage is, I believe, an ideal operation. Such, I am convinced, is that which I wish to now present. The operation is an improvement on that described by Webster of Chicago. Webster's operation consists in perforating the broad ligament from behind, seizing the round ligaments and dragging them through this opening and uniting them behind and to the uterus. The advantages of this operation are that it tilts the uterus forward, so that intra-abdominal pressure is received upon its posterior aspect, which is nature's normal position. The disadvantages are, that in carrying this procedure out the round ligaments are doubled upon themselves, and when attached together behind the uterus there is so much tension often as to make it probable that a certain number of the sutures must cut out and retraction of the round ligaments occur. Again, one cannot be sure what will happen as a result of a future pregnancy; both as to the round ligament being torn loose, and, if it holds, as to the ability of the uterus to distend beyond a certain limit and retain its contents.

This operation is as follows:

The round ligament on each side of the uterus is picked up and a ligature thrown about it close to the uterus, so placed as to secure the artery. The round ligaments are then severed close to the ligatures. This leaves the uterine ends of the ligaments ligated and the other ends free and bleeding. The bleeding is controlled by a fine ligature to each vessel or by the sutures which fasten them in the next step of the operation. A pair of forceps is now made to perforate the broad ligament from its posterior aspect (at the point at which the round ligament is cut on the anterior surface), and the cut end (the pel-

vic end) of the round ligament is grasped in the bits of the forceps and pulled through the hole in the broad ligament (made by the forceps in perforating) until it protrudes on the posterior side of the broad ligament. The opposite side is treated in a similar manner. The cut ends of the round ligaments are now attached by means of sutures to the cornua of the uterus on the posterior aspect of the uterus directly back of the original point of attachment of the normally attached round ligament. The point of attachment may be higher or lower than this, as the surgeon may find necessary to accomplish the result. If necessary, as much of the round ligament is cut off, before suturing it to the uterus, as is necessary to take up any slack and give the proper amount of tension and support to the uterus. This ends the operation. The suture is a continuous one, and may be either chromicized gut or silk. The effect of this procedure is to draw the fundus of the uterus upward and forward into a perfect position.

The uterus remains a pelvic organ. It has no artificial supports. It is as free to expand in pregnancy as it was originally, with no greater danger of the tearing away of its supports. There are no adhesions to give future trouble from pain or possible strangulation of bowels. There is absolutely no tension, and therefore no danger of pregnancy or anything else destroying the operation, or an abortion occurring. The tops of the broad ligament are twisted forward, not enough to endanger the Fallopian tubes by strangulation, but sufficiently so (more or less, as the surgeon desires) to draw up and suspend most perfectly the ovaries, if they be prolapsed and the ligaments are overstretched. The results are perfect, and have only to be tried in order to convince.

Since becoming acquainted with this operation I have only had the opportunity to use it in one case. In this it was perfectly successful both in its mechanical results and in relieving the very distressing symptoms from which the patient suffered, and which made her an invalid for a number of years and confined her to bed for the previous six months. The uterus was maintained in perfect position, and that entirely by nature's supports.

Charles C. Allison, M. D.:

In some cases of *ectopic pregnancy*, the symptoms are so vague and apparently contradictory as to throw much doubt upon a diagnosis.

In the early months of tubal gestation the sac is almost always in Douglas' pouch, with a boggy swelling extending toward the fornix of the involved side. These findings will not be absolute, however, as the distended tube may be migratory and found on the side opposite its normal moorings, as must be the experience of most operators with ovarian tumors and the less acute types of salpingitis. A more rare and misleading migration of the sac is anterior to the uterus, a condition made possible by retrodeviation of that organ. With the bladder empty, the swelling may be very well mapped out bimanually. Add in such a case the hypothesis that the mole is encysted, or that a lithopedion at two months is present, the case is additionally obscured.

In illustration we mention a case operated upon February, 1901, at St. Joseph's Hospital. The patient was thirty-four years old, had borne four children, the youngest three years. The history of her illness, which only partially disabled, included nearly a year; the early evidence was vaguely stated and indefinite, pelvic pain and irregular menstrual periods covering her unsatisfactory history. An examination of the pelvis revealed a retroflexed, fixed uterus, with a mass in front estimated to be the size of a small orange. A diagnosis was not made. It was found upon section that the pelvic peritoneum was stained with a brownish color and there was a small amount of liquid blood in the cavity. The omentum was firmly adherent to the mass, which proved to be an impregnated tube at less than two months, and so degenerated as to be only positively identified by the microscope. This patient reported four months afterward that she still had some pain, due probably to adhesions.

In addition to the anatomico-pathologic departures above mentioned we may also recite that the symptoms, instead of being classical and practically positively evidenced by severe pain, pronounced shock, hemorrhage, and tumor, may be so much subdued and the history itself so indecisive as to make

a diagnosis a mere probability in some cases. In such a case we again declined a positive diagnosis in Mrs. S., aged thirty-two, operated upon November, 1900, at St. Joseph's Hospital. Her history showed that her two children were four and one years of age; that since her last confinement she had complained constantly of pelvic pain; that she had not menstruated since her last child was born, and that it was still nursing. For five or six weeks she had been worse, and yet no acute onset nor definite symptoms were remembered. An examination showed a small fluctuating mass not larger than an egg in the cul-de-sac. There was but little tenderness and no fever. Subacute salpingitis-hydrosalpinx was diagnosed, but a vaginal section showed a fecundated tube with a small blood-clot. Upon subsequent interrogation she remembered that some five weeks before she had a severe pain, which made it necessary for her to rest for an hour; this of course cleared up the history and would have led to a probable diagnosis had it been given.

We would not underestimate the gross and classically recognized symptoms of shock, pain, tumor and hemorrhage, nor of irregular flow and enlarged uterus, but they are not always so manifest. This catastrophe which is seen in two cases may be absent in a third.

♦ ♦

Julius Kohl, M. D.:

My remarks will be mainly on *plastic operations*. Every lacerated cervix should be repaired. After having established proper aseptic conditions, including curetting, if necessary, we should operate. The sewing material is of minor importance. Proper adaptation and perfect asepsis are the chief necessities. I prefer the braided Chinese silk for sewing. I previously boil it, that is all. Dipping it in alcohol or other antiseptic solutions, I consider productive of unnecessary irritation. Thin wire easily cuts tissues; heavy wire is awkward to handle. Catgut is unreliable. Silk has never betrayed me, and I rely on it.

Operations on the cervix result nearly all successfully. Secondary hemorrhage is the chief difficulty which we meet in cervical operations. I have had my share of experience with

it. It requires tact and experience to apply the sutures. The uterine tissues do not bear pressure. A suture too tight will surely cause hemorrhage.

I will state that the rules to be observed in operations on the cervix and uterus apply to the whole vaginal tract. Prior to an operation I irrigate with bichloride solution, 1 in 3000. During the operation I use nothing but sterilized water, but I assure myself of its purity. I am sure that much harm has been done by overcharged antiseptic solutions.

Passing by the operations on the vaginal tract, fistulæ, etc., which need no further mention than that they are a nuisance, considered from any and every point and must be repaired, I will proceed to the perineal lacerations up to and through the sphincter, and resulting displacements of the pelvic organs, rectocele, cystocele, etc. It is surprising how much of that kind of silent suffering is permitted to exist.

The old family physician knew that Mrs. So-and-So was suffering from a wretched laceration. He knew that the poor woman was a burden to herself and others, but he could not help, and he did not direct her to where she could find help, or his advice was not heeded.

Happily these things are changing. I will try to show, by alluding to a few cases, what can be accomplished in that direction.

I do not intend to dwell upon the subject of laceration during confinement. The preponderance of opinion is in favor of immediate repair. My own personal experience in recent lacerations is very limited. Among several thousand cases of obstetrics witnessed and hundreds of forceps and version deliveries in my own practice, and in consultation, I have not seen one-half dozen lacerations, and only two through the sphincter. With proper care and patience those accidents can be avoided. When I was connected with the St. Louis Hospital many years ago, I saw in those pre-antiseptic days a few bad cases. I then and there made up my mind that the majority of accidents are avoidable.

About two months ago a lady forty-seven years old consulted me. I found the following conditions: A laceration twenty-five years old, through the sphincter, cystocele, with in-

continence of urine, hemorrhoids, the rectovaginal septum in a state of atrophy, and fecal incontinence. Os and cervix lacerated bilaterally, with the usual erosions and hypertrophy, and all protruding. She was the mother of many children. Her health appeared to be good and I promised her relief. I draw especial attention to the general health. That being faulty, all our attempts at surgical interference are in vain. Two years ago I had a patient suffering from a laceration which I had repaired with partial success, but which grew worse with every succeeding confinement. During a period of about six years a child every year, and at one time twins, reduced the lady's general health. I recommended her removal from home. Her health would have been improved by the rest, she would be prepared for an operation, and I am confident it would have been successful. My advice was not accepted. She was sent to a surgeon in another city, who knew nothing of her history. The result was as could be expected.

To come back to my present case, this lady having passed the climateric, I concluded to remove so much of the uterus as would reduce its weight to a minimum. I introduced a Bernay's intra-uterine tenaculum to the third row of teeth and dissected to that extent, while an assistant held the bladder out of harm's way. Thus I secured a good covering for the stump and a fine firm roof. Next I removed the hemorrhoids, all in one sitting, which occupied about forty minutes. The operation was performed without anæsthesia. The vesical incontinence was relieved from this moment. The weight of the enlarged uterus having been taken away, gave the bladder an opportunity to distend and regain control. After ten days I removed the sutures, and after another week of rest the patient was ready for the perineal operation. This was done according to the method described by Emmet and approved by Mann and others. The operation recommended by Hegar and Keltenbach is, in my opinion, too complicated. Too many sutures are required. They recommended the stitching separately of the rectum, the vagina and perineum. So many stitches must impoverish the circulation and act as a source of irritation. If the rectovaginal septum is lacerated to a considerable distance, say one-half to one and one-half inches, it is

undoubtedly best to first repair this rent and begin the final closure after this has healed. Mann recommends this, and he is right. To simplify is the best policy. With excellent nursing during the after-treatment this lady recovered, and was out of bed after ten days. The best operation can be spoiled by bad after-treatment and poor nursing. Not one drop of urine was allowed to contaminate the field of operation for a week. For want of reliable nurses to be obliged to watch your surgical cases during convalescence is a task, but it is fully repaid by a vast amount of valuable information obtained, which is indispensable in correct after-treatment.

In operations on the uterus, vagina, and perineum, we must begin by clearing the field of operation from above down. Unless we are sure of universal aseptic conditions our work is in vain. We should never close a wound as long as there is hemorrhage. Dry the surface with iodoform gauze before closing, and do not tie the ligatures too tight. I pass a sound under every ligature and it must pass freely. If it does not, I loosen the knot. Vaginal tissue bears a little stretching, uterine never. It is bad policy to try to do too much. It is not wise to denude too large a surface. A good foundation to the rectovaginal septum, with repair of the rectal and vaginal sphincters is sufficient for all purposes. In the application and line of union of the sutures, we must remain in the median line. Getting away from it, we get away from success. We should never sprinkle iodoform between the flaps. A little dusting after closure is all that is needed. The best can be overdone.

The physician is so often consulted by women of advanced age, who suffer from prolapse of the pelvic organs and external protrusion of the uterus. It is estimated that twenty per cent. of old ladies are thus afflicted. I amputate whenever I can get the consent. The relief is immense. It is productive of cleanliness; it relieves constipation of the bowels; it relieves senile urinary incontinence and does away with the old filthy pessary.

The only danger in the operation of amputating in elderly people in the wounding of the bladder. I have been guilty of two buttonholes. One I repaired, the other one nature repaired. These mishaps appear to be necessary; they teach us to be careful. In addition, a careful assistant will keep the

bladder out of the way with ease. But eternal vigilance is the price of good results.



By J. Algernon Temple, M. D.:

I entirely disapprove of abdominal fixation and I never perform it. There may possibly be some cases suitable for this operation, but I think they are very few; while on the other hand I think that *ventral suspension of the uterus* is a very excellent operation for rebellious and obstinate cases of retroversion that all other treatment has failed to cure.

The object of the operation is to replace a retro-deviated uterus which has refused all other methods of treatment and secure it by means of sutures so placed as to unite the anterior uterine wall to the anterior abdominal wall by the formation of a permanent adhesion, thus rendering the uterus a fixed body in its new situation.

Professor Olshausen of Berlin reported the first case in October, 1886, and Howard Kelly his first case in November, 1886. These were cases of ventral fixation, since which time the operation has undergone many changes and modifications, till now we have a very simple and effective method, thoroughly tested and recognized as one of the useful and scientific operations, in properly selected cases. But it is now uterine suspension and not uterine fixation. There is a wide difference between these two operations.

I am decidedly of opinion that even uterine suspension should only be undertaken in persistent cases of retro-deviations which have refused all other methods of treatment and where the woman's health and personal comfort are seriously interfered with. I don't think sufficient effort is made to cure a retro-deviated uterus nor that sufficient time is given to the treatment. My experience is that there are very few cases of uncomplicated retroversions or flexions that cannot be cured without any operation.

If after a legitimate trial of treatment, it may be for months, you fail to secure a relief to the symptoms and the woman continues to suffer from bearing down pains in the pelvis, a sensation of weight, constant backache, frequent mictur-

ition, inability to walk or work without increasing these symptoms with an increase of suffering at the monthly period, several reflex nervous symptoms, such as headache, neuralgia, dyspeptic symptoms, then I have no hesitation in saying by all means suspend the uterus. If these symptoms happen in a working woman dependent upon her own efforts to earn a living, then perhaps I would advise operation earlier.



H. T. Brownlee, M. D.:

I want to emphasize the statement that all *fibroids* do not call for immediate removal and then I want to qualify the statements that any fibroid, however innocent in appearance, may at some time be subject to removal for cause. They are nothing to be scared about, but a good thing to keep watch of. I have in mind a number of patients who have carried a fibroid for several years with little or no discomfort, and in some instances it has been discovered by accident. In other cases they are the source of considerable vexation in various ways, but even many of these can be brought into subjection by conservative management.

However, when you find a fibroid, whether large or small, which interferes with a woman's health in spite of palliative treatment, then it should be removed.

They may cause interference with the circulation by pressure on the pelvic vessels; may cause serious difficulty by pressure upon the rectum, bladder or ureters, or when higher in the abdominal cavity cause pressure on the intestines and other organs; may cause persistent anæmia from hemorrhage, or may cause the patient to be an invalid from various discomforts, often incurred by the simple knowledge that it is there. In those cases I advise removal.

Book Reviews.

PRACTICAL OBSTETRICS. A Text-book for Practitioners and Students. By EDWARD REYNOLDS, M. D., Visiting Physician to Free Hospital for Women, Formerly Instructor in Obstetrics in Harvard University, etc., and FRANKLIN S. NEWELL, M. D., Assistant in Obstetrics and Gynecology in Harvard University, etc. Illustrated with 252 engravings and 3 colored plates. Lea Bros. & Co., Philadelphia and New York, 1902.

This neat, well-bound, and well-printed volume does not need the excuse offered for its existence by the authors in the preface. It is a concise, practical, and intelligent exposé of the subject of obstetrics. The plan is to present one description, or one plan of treatment and allow the student to master that ideal; then further elaboration may be followed in other more comprehensive works. We should strongly recommend this work for students. The authors show their long experience in teaching by the graphic and telling way the subject is presented which is sure to be appreciated by the careful reader. In those chapters which treat of the Induction of Abortion and Destructive Operations on the Fetus, attention is called to the possible religious feelings of the patient or family which might be opposed to such interference. The matter should be carefully explained beforehand, and the responsibility of the decision to rest with the patient and her family.

THE DISEASES OF INFANCY AND CHILDHOOD. Designed for the Use of Students and Practitioners of Medicine. By HENRY KOPLIK, M. D., Attending Physician to Mt. Sinai Hospital, etc. Illustrated with 160 Engravings and 30 Plates in Color and Monochrome. Lea Bros. & Co., New York and Philadelphia, 1902.

The author appreciating the development of Pediatrics in recent years and the active scientific research in this department with consequent growth of its literature, both in this country and abroad, conceived the idea of a text-book in which would be represented the opinions of the best observers in many countries. His own abilities and experiences in the line of diseases of children, eminently fitted him for that task, and the result has been a volume which is a distinct contribution

to the subject of Pediatrics. At the end of each chapter are the names and works of the leading authorities referred to in that chapter, while at the end of the book there is a list of over 500 authors whose works have been consulted, thus the wide range of opinions thus collected is obvious. It would be difficult to point out principal features in a work of such general excellence, but the section on infancy and childhood, which includes feeding, those on Diseases of the Respiratory Tract, Diseases of the Heart and Lungs, and Diseases of the Nervous System, are to be especially commended. Due consideration and explanation is given to lumbar puncture as a means of diagnosis.

WHAT A YOUNG BOY OUGHT TO KNOW. The first book in a Self and Sex Series to boys and men. By SYLVANUS STALL, D. D. Vir Publishing Co., Hale Building, Philadelphia.

This little book handles a delicate and very important subject in a very admirable way. It is clear, forcible, yet delicate, and should be read by not only every boy, but every teacher in the country. It is very readable, indeed extremely interesting, and, properly distributed, would do an immense deal of good work.

Translations.

LIGATURE, NOT FORCEPS, IN VAGINAL HYSTERECTOMY.

Inglessi (La Gynéc.) deprecates the use of the forceps in vaginal hysterectomy. He admits that the abdominal operation is in most cases preferable, but for small tumors the vaginal method may be better. Hemostasis is best attained by the aid of ligatures, not only when the uterus is removed for prolapse, but also when it is extirpated for cancer or small fibroids, or taken away with diseased appendages. Inglessi lays much stress on intelligent application of the ligatures. To tie the broad ligament in one piece is unjustifiable. Ligature in segments is better, but still it is not the best surgery. The operator's task is to tie the vessels of the broad ligament rather than the ligament itself. These vessels run entirely along its free borders, the uterine at its base, the utero-ovarian

anastomosis along the upper border, and the artery and vein of the round ligament, down the border of that structure. Hence the ligatures must be applied to those vessels; between them there are no sources of hemorrhage in the broad ligament. Thus six ligatures will be sufficient. Their application greatly simplifies the after-treatment, although it takes longer than the putting on of pressure forceps. Inglessi records twenty-three cases performed by Bouglé with only one death, and that was from sepsis, not hemorrhage. A rubber tube, passed into the middle of the vaginal wound, but not into the peritoneal cavity, with a strip of gauze, is used, instead of the vaginal tampon. This practice saves the patient much painful and tedious dressings.

PRESSURE ON URETERS BY FIBROID.

Dauvergne (*Echo Méd. de Lyon*) relates that a woman subject to uterine fibroid for eight years suddenly developed symptoms of anuria. There was vomiting, with dyspnoea, and at length marked uræmia. On admission into hospital 5 oz. of dark, highly albuminous urine were drawn off. The urine was free from blood or casts. Delore performed panhysterectomy, removing the appendages as well. On the next day the albumin had disappeared, as well as the vomiting. The long-standing incomplete pressure of the tumor on the ureters caused distention of the kidneys and interstitial nephritis, as occurs when a ureter is loosely ligatured. The complication, as usual, remained latent till the pressure became, for some reason, more severe. Acute congestion caused albuminuria, which vanished when the pressure was removed.

ACTINOMYCOSIS OF FEMALE PELVIS.

Fehmers (*Monats. f. Geb. u. Gyn.*) reports two cases observed in a hospital at Leyden. In both the parasite produced a true parametritis with special symptoms. In the first patient a soft mass lay to the right of the uterus, and a harder deposit on the left. Pelvic peritonitis was diagnosed, and Douglas' pouch was opened; the finger passed to the left entered the pelvic connective tissue. Abscesses then developed and were opened; a fecal fistula formed. Abdominal section was performed, and two openings in the small intestine which communicated with the fistula were closed. The patient died a day later. The actinomyces, detected at first, were not to be found in the later stages of the disease, nor could any be discovered after death. The second patient had a large hypogastric tumor, chiefly on the right side, the outline of the uterus

could not be clearly felt. On the left and posteriorly was deposit of stony hardness. An incision was made along the linea alba; then thin pus escaped freely out of the tumor. Abscesses developed as in the first case, and were opened. The temperature rose, but no new deposit of the parasite could be detected. Death ultimately occurred. At the necropsy pyelonephritis was detected, with narrowing of the left ureter through development of cicatricial tissue in the parametrium. Abscesses had formed around the bladder and rectum, and there were purulent foci around the vermiform appendix.

UTERUS DIDELPHYS: LEFT HÆMATOMETRA.

Von Pauer (Centralbl. f. Gynäk.) publishes a full report of a case where a robust country girl, aged eighteen, suffered from very severe pain in the left iliac fossa at every period from the establishment of the catamenia. A swelling developed, and on that account she sought medical advice. The hymen was intact, the vagina narrow with a small cervix lying much to the right, whilst the left fornix was remarkably capacious. The body of the uterus could be felt, continuous with the cervix, and running upwards, towards the right iliac fossa. A well-defined, elastic, fairly movable, painless tumor occupied the left iliac fossa, its lower extremity could be felt in the left fornix. Elischer of Buda-Pesth operated. He found a right uterus with normal cervix and normal tube and ovary, whilst the left uterus was entirely distinct and atresic; indeed, it was only connected with the left fornix by a thin band. This imperfect uterus contained retained blood; its tube was converted into a large hematosalpinx, and twisted over its fundus. Thus the hematosalpinx (with the left ovary) lay between the right and left uterus. The left uterus, tube, and ovary were removed. At the same time a tumor "of the size of a child's fist" was excised from the omentum; a cordlike process ran from the upper end of this growth towards the spleen. It was found to be an accessory spleen.

ABDOMINAL EXPRESSION AS AN AID IN LABOR.

Keim (Gaz. des Hôp.) says that in order to understand the mode of action in expression of the fetus it is only necessary to remember that it should be parallel to that abdominal contraction, which is a spontaneous expression, since artificial expression simply re-enforces this and is not a substitute for it. The pressure exerted by the hands should begin at the level of the upper part of the anterior abdominal wall and be exerted parallel to the axis of the superior strait. It must accompany the

contractions, and may be continued from ten to twenty minutes, often less; a moderate amount of force is the best. It may be applied at the beginning or during labor. The indications for the use of abdominal expression are, relative uterine or abdominal inertia; brevity of the cord; prolapse of the cord in order to hasten delivery without increasing the compression on the cord; also in prolapse of the members; in delivery of the second twin after the birth of the first; when there is a moderate contraction of the pelvis with a conjugate of 11 to 8 1-2 cm. Abdominal expression may help much in forceps delivery. It may also be of great value to hasten delivery when a grave condition of the mother exists, as in placenta prævia; eclampsia, in thoracic affections, and especially cardiac and pulmonary emphysema. It is contra-indicated in all cases where it is impossible to grasp the uterus, in obesity, in gaseous distention of the intestines, and when the uterus is sensitive through inflammatory processes, or in case of absolute uterine inertia, since the presence of contractions is indispensable to its use; in insufficient dilatation of the os; vicious presentation or excessive volume of the fetus, or lack of ossification in the fetal head.

TREATMENT OF CONTRACTED PELVIS.

Kroenig (Münch. med. Woch.) discusses the treatment of labor complicated by contracted pelvis, and bases his arguments on the material at the Leipzig Maternity clinic. He finds that one practices five methods for this condition, and deals with each of these separately. Before doing so, he says that it is impossible to make hard-and-fast rules for each degree of flattened or generally contracted pelvis, since the size of the fetal head, the strength of the labor pains, and above all, the impossibility of directly measuring the conjugata vera must upset any such rule. First he turns to version, and says that in the cases in which the after-coming head may be supposed to pass through the contracted inlet of the pelvis, one can never be sure whether it will not come through in the position of the vertex presentation, if one will wait; version must be performed either before the membranes have ruptured or immediately after, and at this time one has no means of estimating how much good pains and moulding may do. He has compared the results obtained in clinics where version was largely practiced with those where this means was not used, and finds that the prognosis for the child is not improved.

Next comes the high forceps operation, and of this he says gynecologists are mostly agreed that one should not apply

forceps with the intention of attempting to overcome the disproportion between the pelvis and the fetal head. A forced delivery by this means is not safe for the mother and almost certainly will sacrifice the life of the child. The third means of dealing with this condition is the induction of premature labor. The same difficulty must be raised against this proceeding as against version, that one does not know if one cannot obtain a living child by waiting, and he regards that the chances for the child are incomparably better if the fetus is allowed to come to full time. He therefore also puts this method on one side.

The remaining two methods are symphyseotomy and Cæsarean section. When the conjugata vera is not less than 3 3-4 in. these two operations may be considered as rival methods. Against the former it must be remembered that after it has been performed the labor will not be completed at once, that it is a very difficult operation and requires a skilled surgeon and obstetrician. Once performed, however, the future labors of the patient are not infrequently rendered more easy. Cæsarean section is much more easily performed and the child is delivered at once. But these procedures still have a mortality of about two per cent., and this risk for the mother must be considered. He thinks that the best way of managing is to wait to see if the head will pass through the inlet of the pelvis, and if it does so, the labor may be completed with forceps; if the mother's life gets endangered during the waiting one always perforates the fetal head, which one may do to save the mother's life; and if the two are in no immediate danger, then one should consider between symphyseotomy and the abdominal operation.

CARCINOMA OF THE CERVIX OBSTRUCTING LABOR.

Bamberger reports the following case (Münch. med. Woch.): He was called to a woman during the night of December 17, 1901, who was in labor, the attending midwife having diagnosed placenta prævia. The patient had previously had seven normal confinements, and the only abnormality which she had noticed during the present pregnancy was that she had lost blood at irregular intervals during the latter months. The membranes had ruptured five days before, and only for the last twelve hours had the pains been severe. On arrival, he found the patient very anæmic; the pulse small, irregular, and 120 in the minute; the temperature was 100.6° F.; there was dyspnoea and restlessness. The fundus was placed a fingerbreadth below the costal arch, to the right small fetal

parts, to the left, the back, and the fetal head apparently immovable in the inlet of the pelvis. The fetal heart sounds were 144. The pains were strong and every three to five minutes. There was some bloody discharge which had a very offensive smell. The vaginal portion of the cervix was not dilated and extremely hard, in places distinctly knotty. To the left there was a small portion which was softer and more dilatable than the rest of the cervix; the finger could be passed through the external os, and came upon a soft mass, which proved to be blood clot on irrigating the parts with lysol solution. Behind this, on the right wall of the cervical canal, there was a tumor of the size of a hen's egg, and at the part corresponding to the internal os, the wall was broken down and covered with offensive secretion. At the side of the tumor one could pass the finger on to the fetal head, which lay in the first position. It was clear that there was cervical carcinoma which was obstructing the labor.

The child's life was in no danger, but the mother was in extreme danger, and it was therefore necessary to deliver as soon as possible, with as little damage to the mother as possible,

As the growth extended right into the right parametrium it would have been of no use to remove parts of the growth in order to apply forceps, and therefore he proceeded to make excisions as carefully as possible into the cervix, and at length succeeded in establishing a passage sufficient to pass the whole hand. He then attempted cautiously to turn the fetus, and was successful in doing so without experiencing any difficulty. The delivery followed fairly easily, and the child, a girl, was living and strong, without any caput succedaneum. The incisions in the cervix were plugged with gauze after the placenta had been expressed. The patient vomited several times before she came out of the chloroform anæsthesia.

At ten o'clock on the next day she complained of not being able to pass her water and of thirst, and on removing the packing a quantity of very offensive sero-purulent bloody discharge came away, after which she could micturate. Temperature was 103.2° and pulse 120, while the dysnœa was marked. In the evening her condition was extremely bad, and she died of general septic peritonitis on the next day.

MYOMA OF VAGINA.

Machenhauer (Centralbl. f. Gyn.) attended a woman, aged forty-two, subject for a year to attacks of bleeding, sometimes severe, with occasional sanious and purulent discharge. The patient had borne three children. A tumor was found filling the vagina, and attached to its posterior wall, high up. This

growth was of the size of a fist, and covered with congested mucous membrane. It blocked the vagina so much that there was difficulty in determining the relations of the uterus. The sound could not be passed, but the finger could reach the little pit or depression above the tumor; this was the os externum. Then it was found that the uterus was separable from the growth and full of little swellings, some as big as a cherry; it moved freely. The tumor was easily removed by enucleation out of the recto-vaginal septum after an incision through the vaginal mucous membrane. The cavity was plugged; the tissues around it cicatrized so as to make a funnel-shaped depression. The uterus was found to be retroverted, but this displacement caused no symptoms. The tumor was made up entirely of smooth muscle fibers without any connective tissue.

CICATRICAL CLOSURE OF OS: CÆSAREAN SECTION.

Van Doort-Kroon (Monats. f. Geb. u. Gyn.) was called in to a woman in her seventh labor. Abortion had occurred four times, craniotomy had been twice performed. It appeared that during the first labor the forceps had been used ineffectually; the upper portion of the vagina was reduced to cicatricial tissue, and the os could not be reached by the finger. The *conjugata vera* measured 3 1-8 in. The os was detected as a little pit close to the symphysis, after the introduction of a Simon's speculum, then it was opened with scissors. Next day an arm had prolapsed, and turning was attempted without success. Van Doort-Kroon preferred Cæsaean section to a second attempt at turning under deep narcosis. The narrowness of the diseased vagina prevented intra-uterine manipulation, and it was thought that the bad pulse and the temperature (over 102°) made turning more dangerous than Cæsaean section. The uterus was opened in the middle line. Suppuration occurred in the suture tracts of the abdominal wound, but the patient recovered.

PRIMARY EPITHELIOMA OF OVARIES DEVELOPED AFTER PANHYSTERECTOMY FOR CANCER OF CERVIX.

Jayle and Bender (Bull. et Mem. de la Soc. Anat. de Paris) report that the former removed a uterus with typical cancer of the cervix by vagino-abdominal hysterectomy on May 9, 1901, from a woman, aged fifty-seven. The ovaries and tubes were healthy. Contrary to his usual practice, Jayle did not remove them. The patient did well till October, 1901, then pain and

swelling in the iliac fossæ set in. The abdomen became distended, and in December ascites was diagnosed. The pelvis was nearly filled by a bulky, irregular, ill-defined mass. On January 12, 1902, Jayle operated once more. Ten pints of fluid escaped from the peritoneal cavity. The mass which filled the pelvis was a large tumor of the left ovary; it was removed. Then two or three nodules were detected in the cicatrix of the first operation, quite separate from the ovaries and subperitoneal. The right ovary formed a mass as big as a fist, and was removed. Neither tumor could be completely extirpated, owing to adhesions and invasion of neighboring parts. Mikulicz's drainage was employed. The patient left hospital five weeks after the operation in good health, but with a small fistulous tract in the abdominal wound. The right tumor did not contain a trace of ovarian tissue; the left, which was the larger, included numerous Graafian follicles. The new growth was a very actively growing epithelioma.

FIBROID DELIVERED WITH PLACENTA.

Boissard (Bull. de la Soc. d'Obstét. de Paris) turned the attention of obstetricians to a placenta from a case where pregnancy and labor had proceeded smoothly. There was no difficulty about the expulsion of the afterbirth. Yet on examining the placenta, as a matter of routine, a tumor as big as a hen's egg was discovered. It lay 2 1-4 in. within the edge of the placenta, and was grayish in color and fibrous in consistence. At one extremity a distinct trace of a pedicle torn through was detected. The other extremity adhered firmly to the chorion. Thus the patient was delivered of an undiagnosed tumor at labor. Had the fibroid (for it was a pedunculated fibromyoma) become detached from its adhesion to the chorion before the expulsion of the placenta, it might possibly have lain in the uterine cavity and set up septic symptoms. Retention of placental tissue would then have been suspected. Delivery of a fibrous polypus during labor has been noted in obstetrical literature, but the presence of a growth of that class adherent to the membranes has not been previously reported. Boissard adds that he intended to examine the patient after convalescence so as to determine if the uterus contained any more fibroids.

GENERAL ANÆSTHESIA IN OBSTETRICS WITH PURE ETHYL CHLORIDE.

Lepage and Lorier (Gaz. Heb. de Met. et de Chir.) call attention to the recent experiments with ethyl chloride as a gen-

eral anæsthetic and advocate its use in obstetric practice. It was in 1896, in a scientific Congress at Sorbonne, that Soulier and Briau first made known the anæsthetic properties of this drug, and Von Hacker made the first clinical tests in 66 cases, the results of which were very favorable, its action being rapid and the recovery almost instantaneous, without any nausea. Further experiments were subsequently made by Severeanu, Malherbe, and others, and Réboul in February, 1902, declares himself convinced of its great value, after testing it in 200 cases. Lepage and Lorier report in detail 14 obstetric cases in which they had used ethyl chloride and summarize its advantages as follows: It is easy of administration, the dose being always the same; anæsthesia is obtained in from thirty to sixty seconds at the most, and lasts four minutes without repeating the dose; and return to consciousness is very rapid, and rarely accompanied with nausea.

It can be used with advantage under the following conditions: (1) In the course of labor when it is necessary to extract the fetus with forceps, or to perform version by internal maneuvers or to lower the anterior foot in incomplete breech presentation. Under the last circumstances, the ethyl chloride has this advantage—it permits a rapid awakening of the patient, who can then, by her own efforts, terminate the expulsion of the fetus. (2) Its use is also indicated when manual removal of the placenta from the uterine cavity is required; or if in the case of very weak women it is deemed wise to extract the membranes when they remain in great part in the uterus. (3) After delivery this mode of anæsthesia may be used while making any necessary sutures of the perineum. It is also recommended when, during pregnancy, an examination under anæsthesia is indicated to determine any abnormal or vicious pelvic condition of diagnostic difficulty.

The writers urge their confrères to state whether, in their use of ethyl chloride as a general anæsthetic, they have observed any accidents or known of any contra-indications. Convinced that, primarily, not to injure is the capital duty of the physician, they will continue their experiments in the use of this agent all the more willingly if their colleagues can confirm their observations that the ethyl chloride is efficacious and what is more important, that it is harmless.

PERFORATION AND VERSION.

Zanke (*Deut. med. Woch.*, 1902) reports, with the view of inviting discussion: A primipara, aged twenty-five, was taken in labor on a certain morning, and, in response to strong pains, the os dilated fully and the "waters" broke in the evening.

The cord was seen to prolapse, and the midwife advised that a medical practitioner should be called in, but this was refused, and Zanke was only sent for on the following morning. On arrival he found that the pains were very feeble, the os fully dilated, and the cord prolapsed. There was a foul-smelling discharge, and the patient had a raised temperature and a quickened pulse. The diagonal conjugate measured about two in., the pelvis being flattened. The fetal head was freely movable above the brim of the pelvis, and the sagittal suture was placed in a transverse direction. The cord was not pulsating, so that he had only to consider the condition of the mother. Cæsarean section was refused, and in any case would have been dangerous, on account of the fetid condition of the uterine contents. He therefore had to choose between version, perforation, and a combination of the two. As the head was very large, he decided against version by itself, though the uterus was quite slack, and there was no contraction ring, and therefore he chose to perform craniotomy, and attempted to deliver the head by the cranioclast. In spite of some force being used, he found that this was impossible, and he then proceeded to turn the fetus, and succeeded in delivering the after-coming perforated head with difficulty. He discusses the point whether one should perforate first and then turn, or perforate the after-coming head. He considers that although it has been said that it is difficult to perforate a freely-movable head, which was not his experience, and that it is better to perform version first, it is much safer for the mother to perforate first, and that the risks of injuring the maternal soft parts in perforating an after-coming head must be considerable. His patient made a good recovery.

OVARIAN PREGNANCY.

Füth (Monats. f. Geb. u. Gyn.) recently read notes,, before the Leipzig Obstetrical Society, of a case of ovarian pregnancy. The right ovary was continuous with the sac, whilst the fetus lay enveloped in omentum and was converted into a lithopedion. The pregnancy seemed to have passed the fifth month. Half a year before the patient came under observation she had been delivered spontaneously. The abnormal pregnancy had occurred about three years previously. The condition of the Fallopian tubes is not described in the report, which says nothing as to whether the author considered the gestation to be primary or secondary.

—Appreciating the superior quality of G. H. Mumm & Co.'s Extra Dry Champagne, that brand was used exclusively at the banquet of the American Pharmaceutical Association in celebration of their fiftieth anniversary, held at Horticultural Hall, Philadelphia, Thursday evening, September 11.

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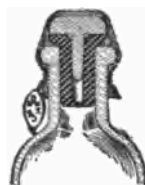
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